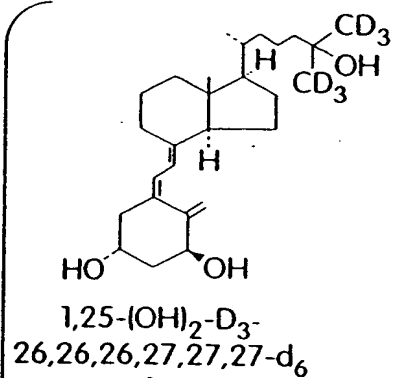
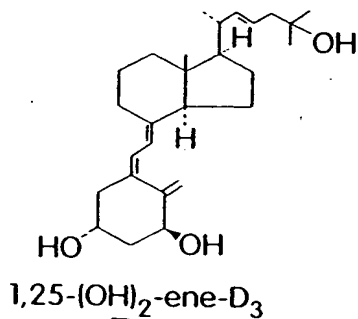


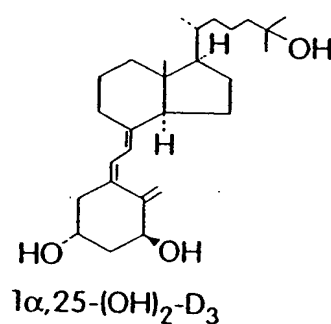
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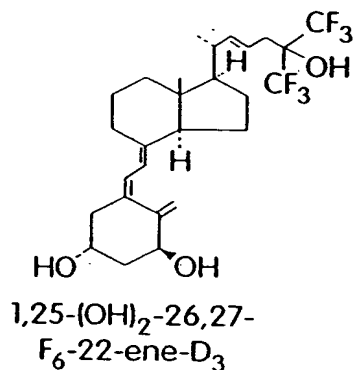
A



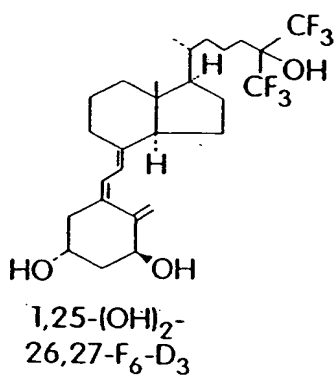
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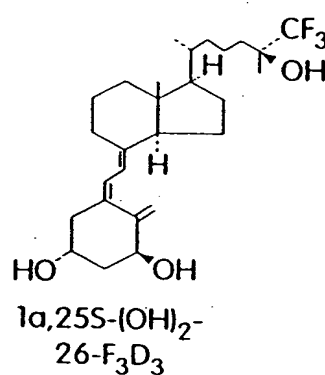
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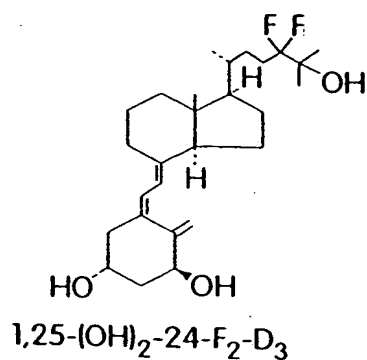
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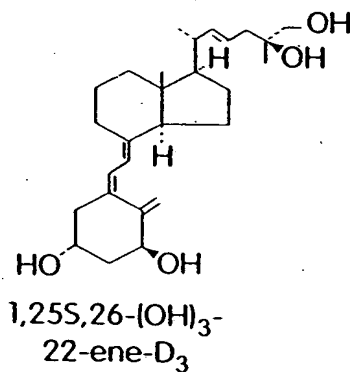
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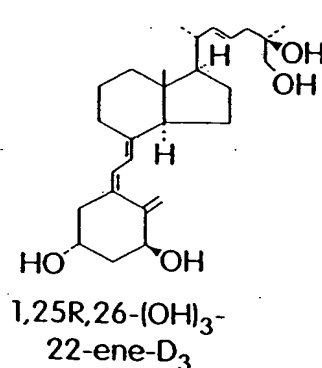
F



G



H



I

Fig. 1

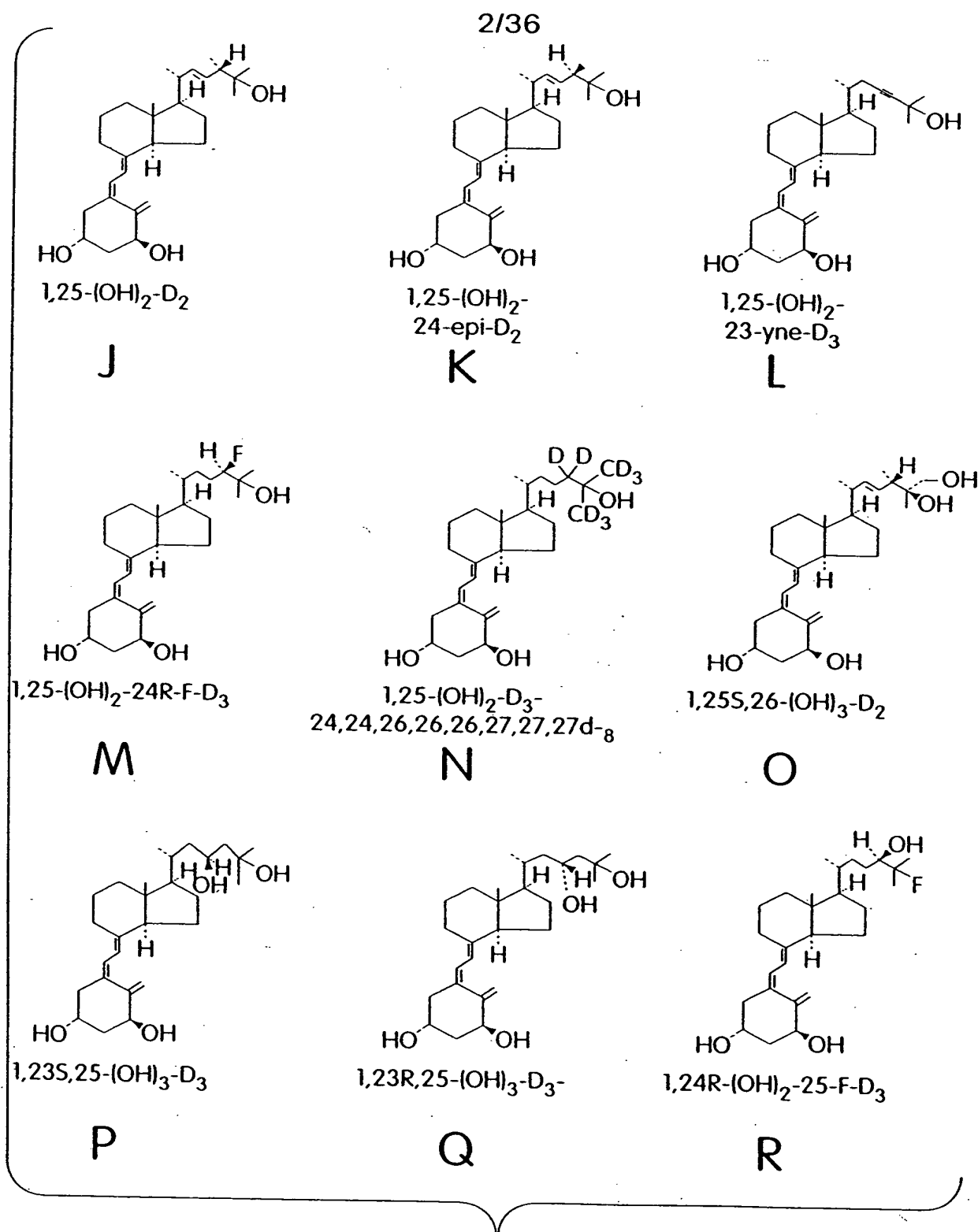


Fig. 1A

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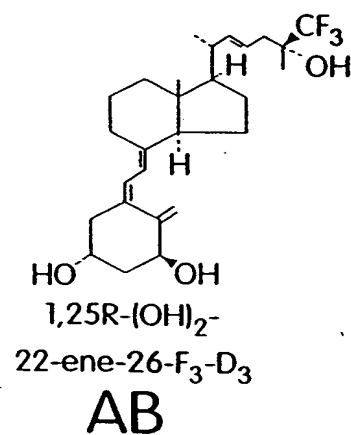
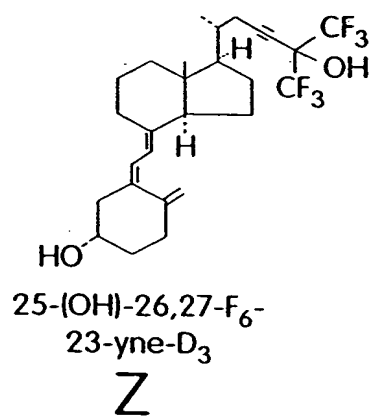
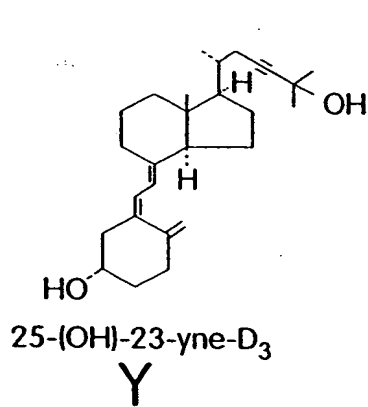
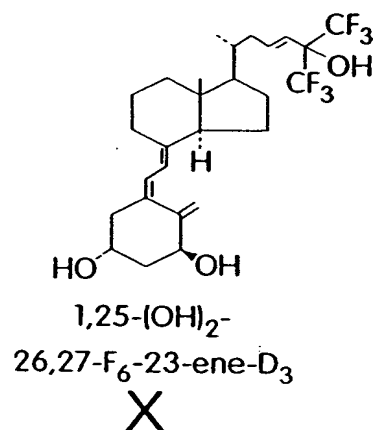
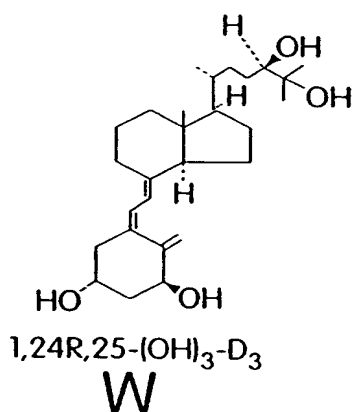
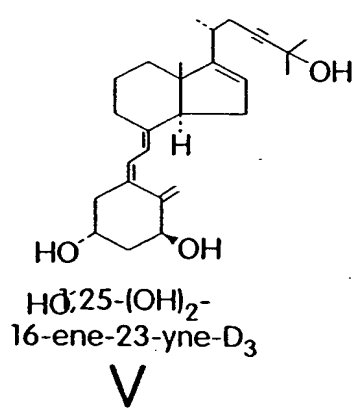
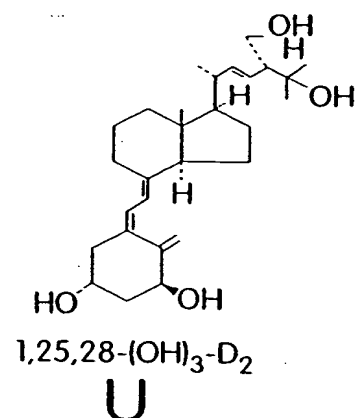
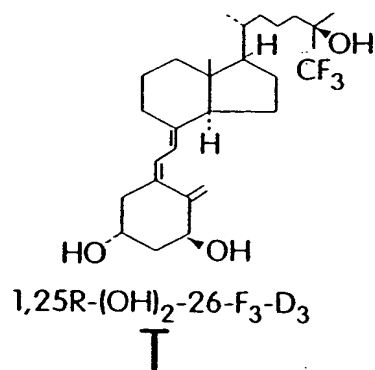
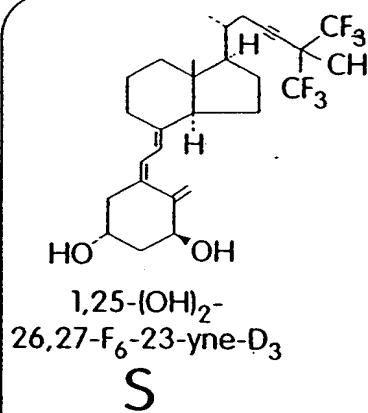


Fig. 1A-1

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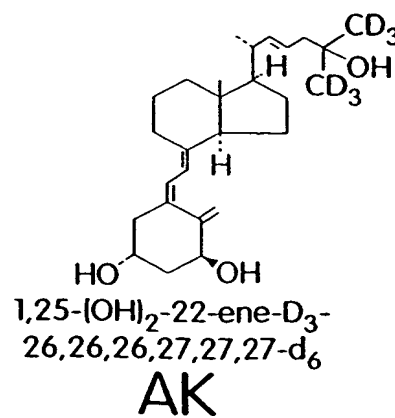
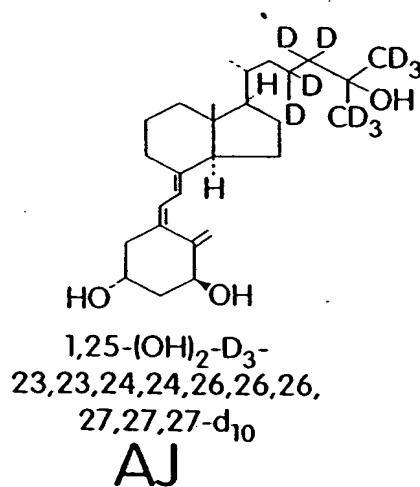
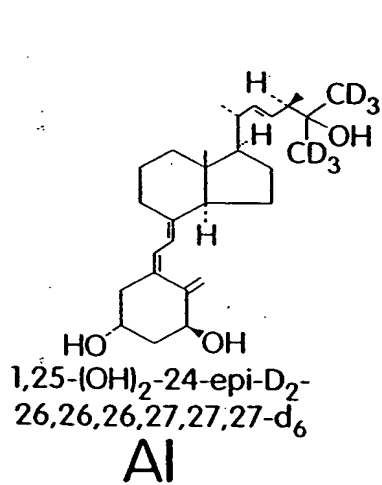
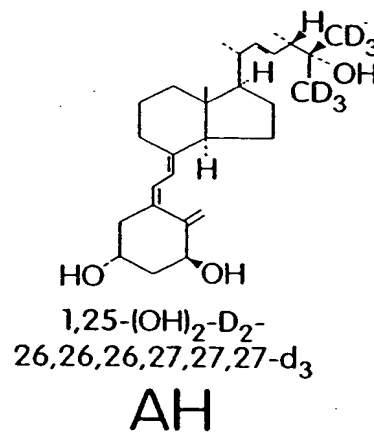
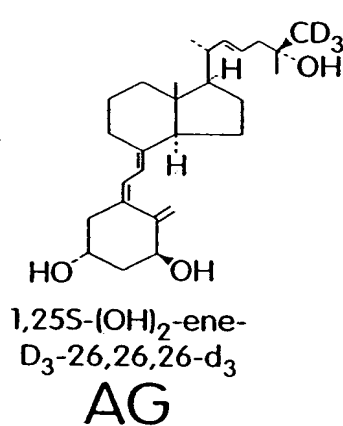
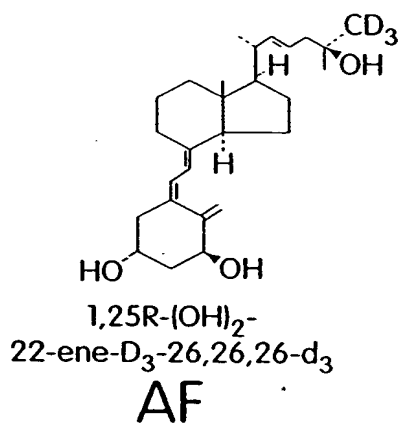
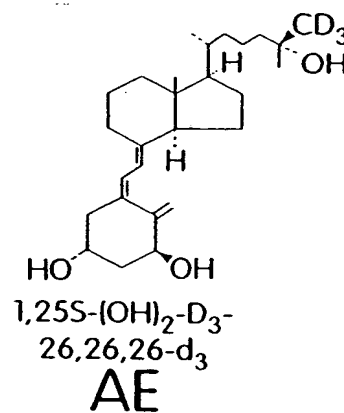
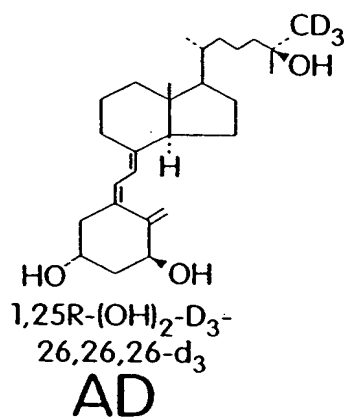
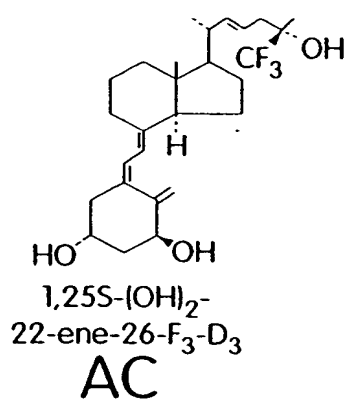


Fig. 1A-2

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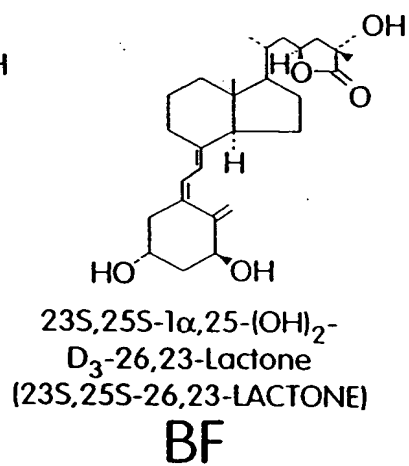
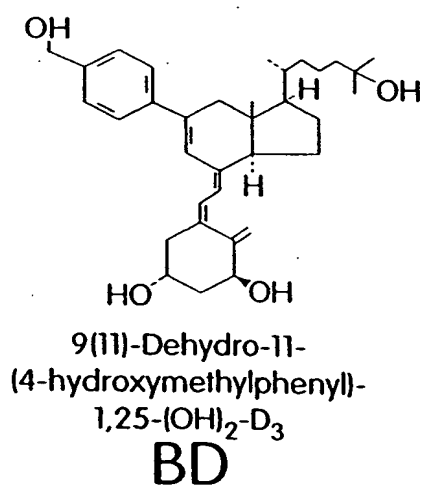
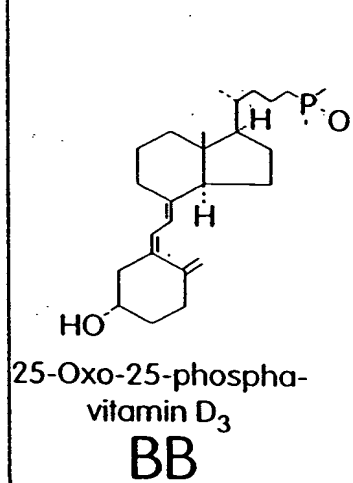
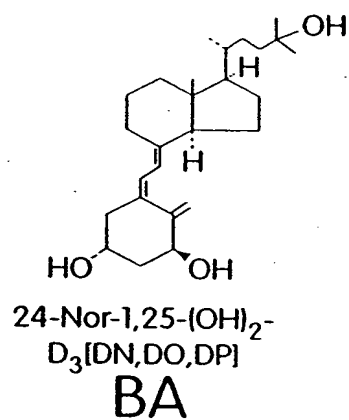
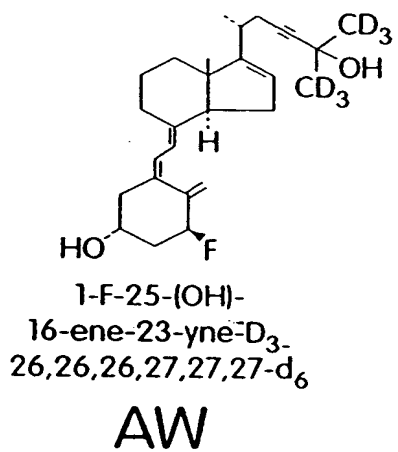
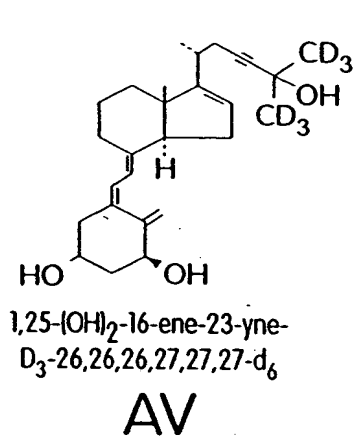
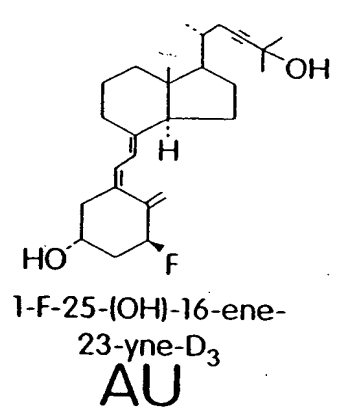
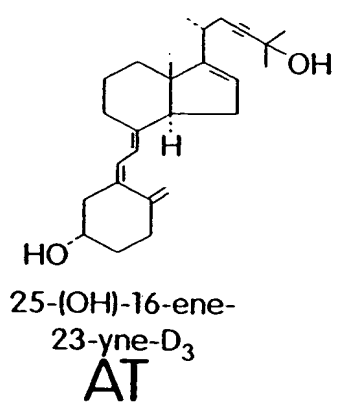
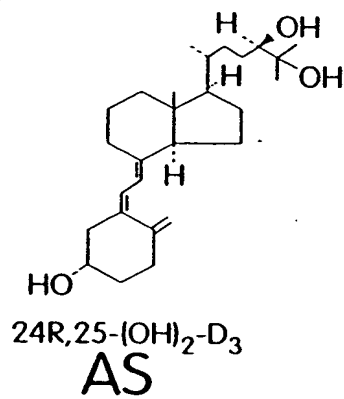


Fig. 1A-3

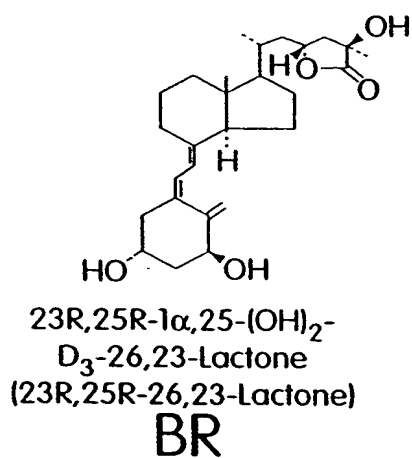
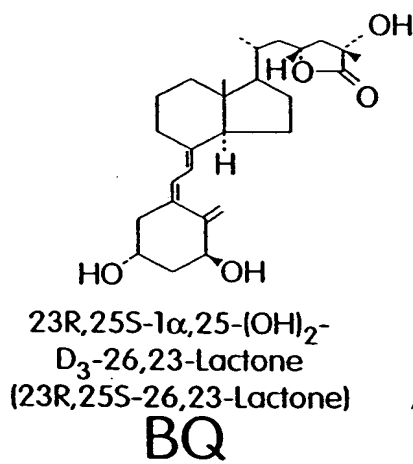
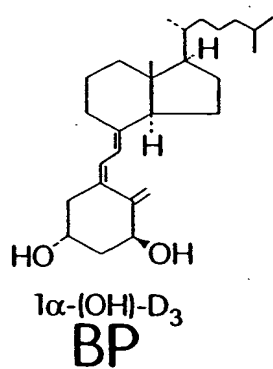
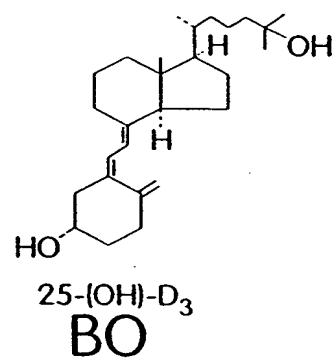
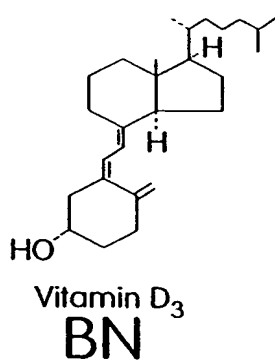
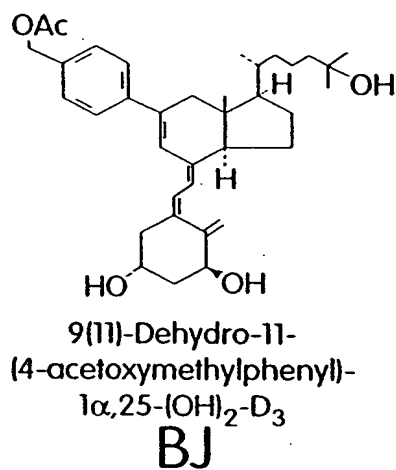
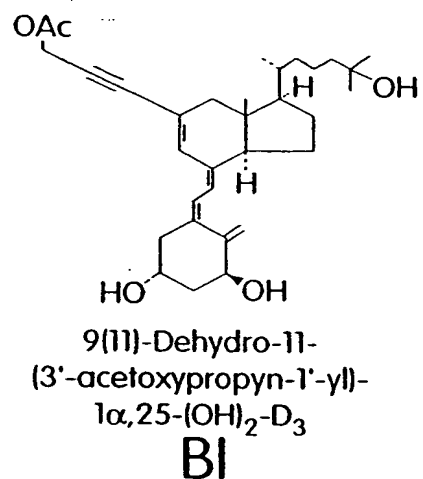
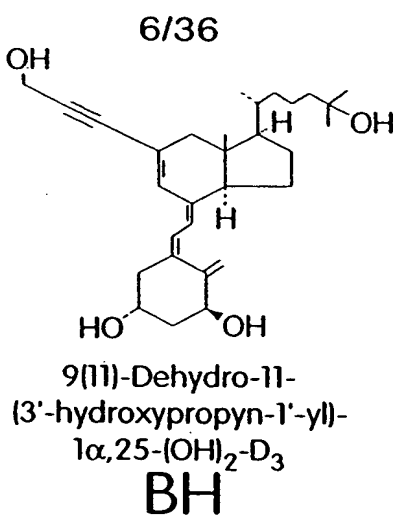
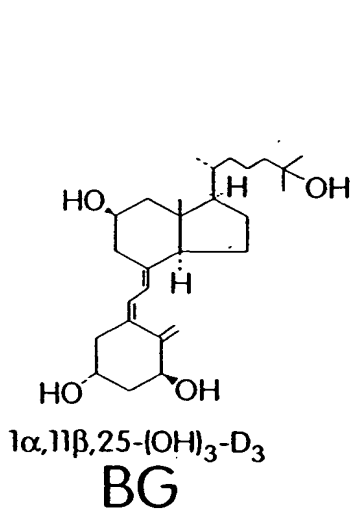


Fig. 1A-4

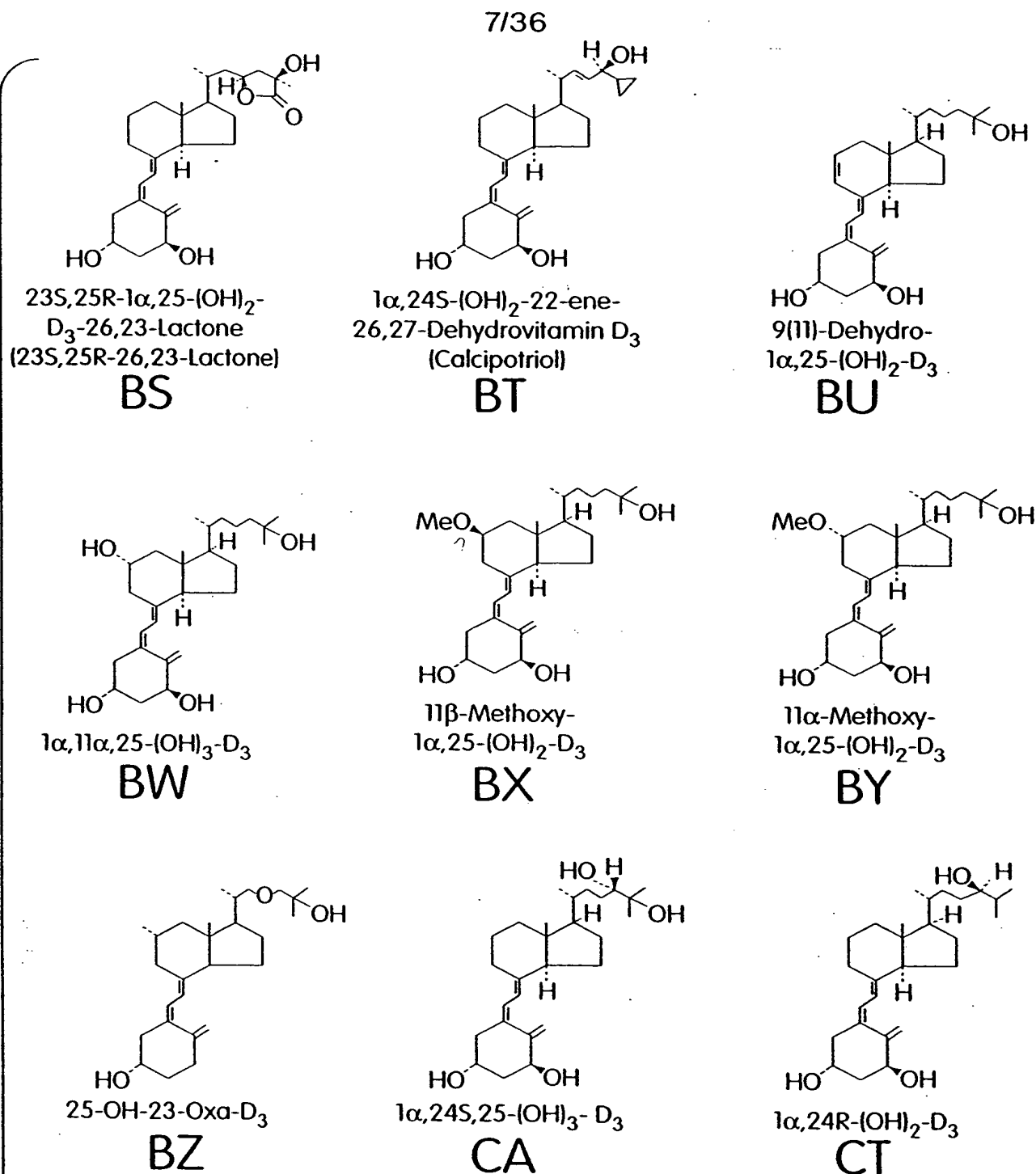


Fig. 1A-5

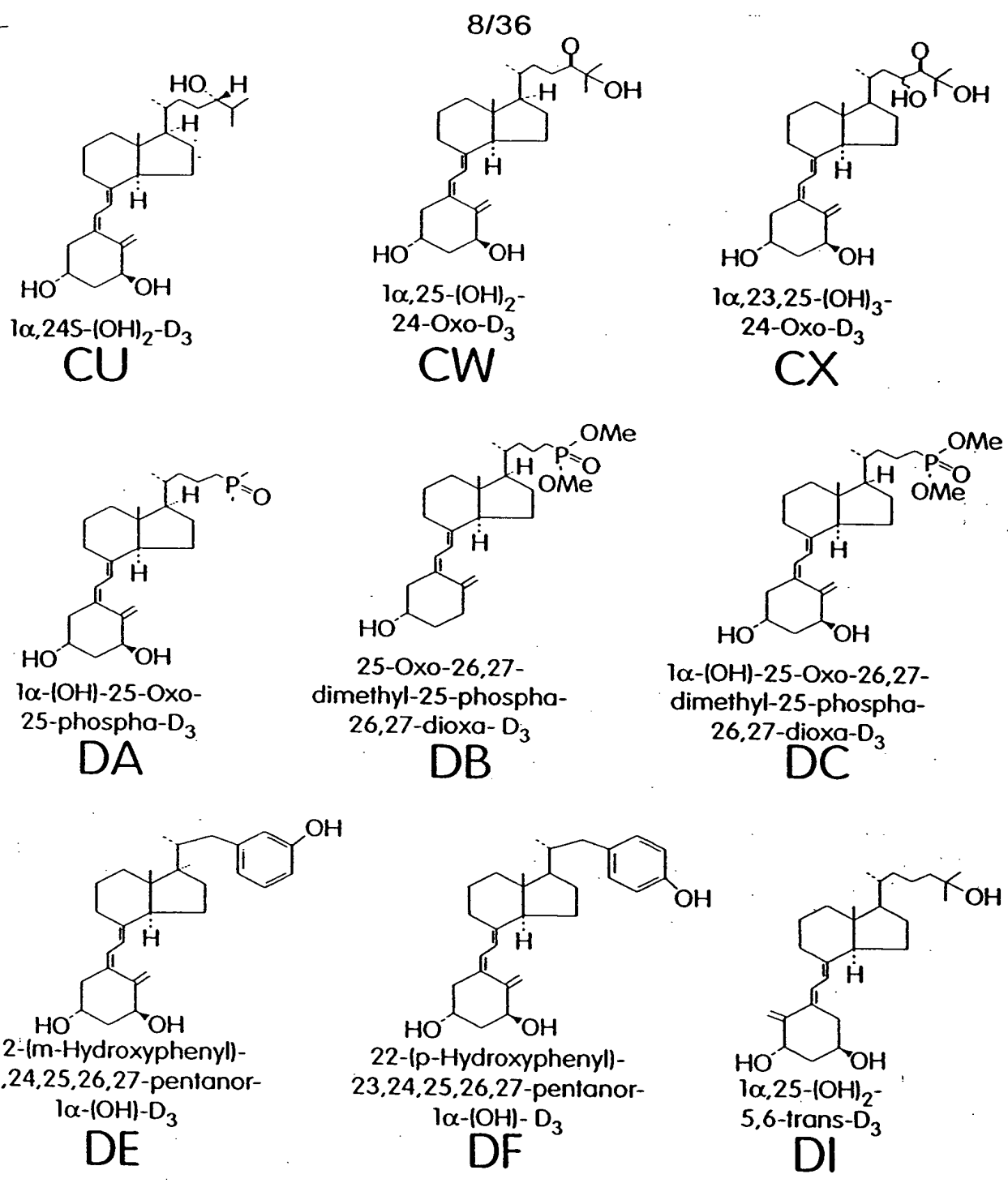
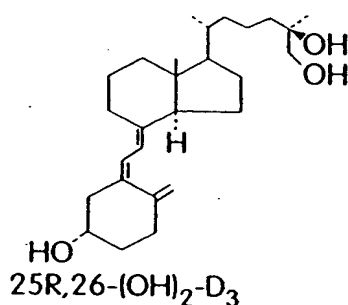
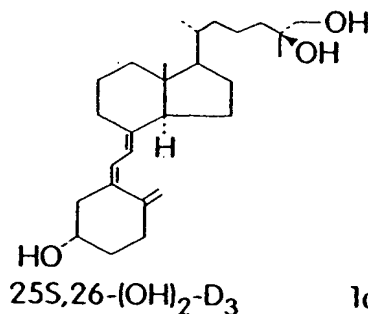


Fig. 1A-6

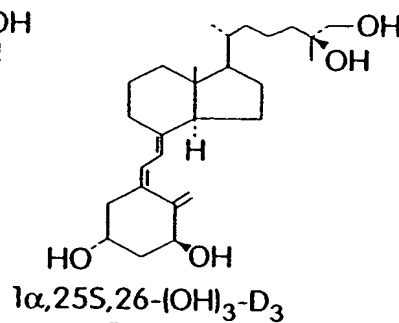
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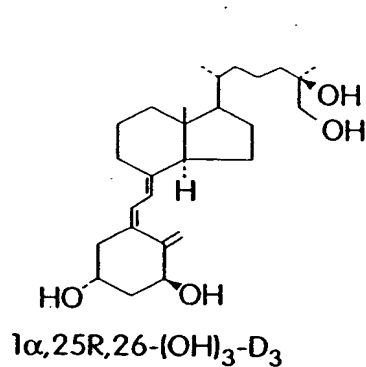
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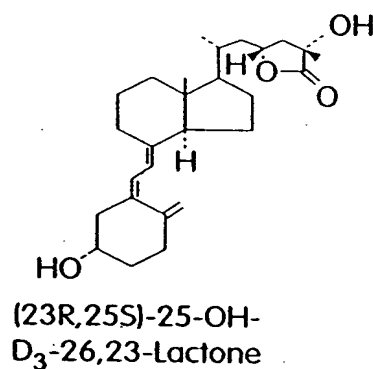
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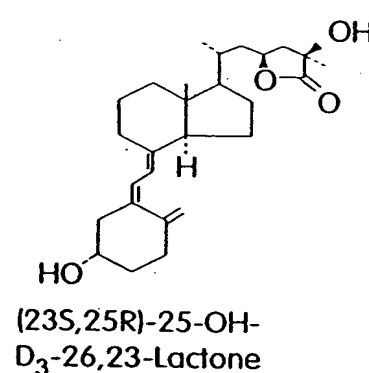
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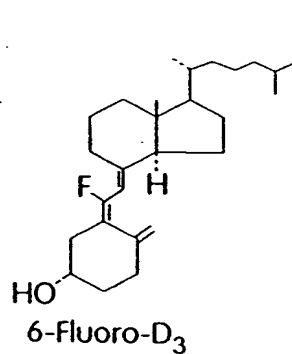
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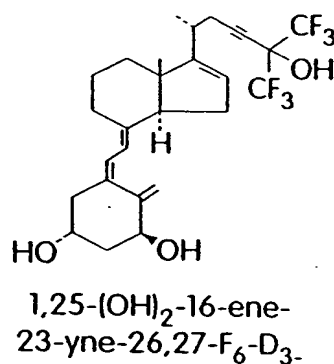
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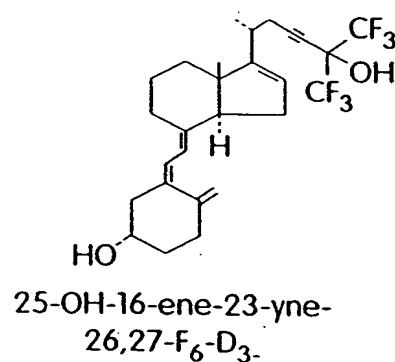
ED



EM



EO



EP

Fig. 1A-7

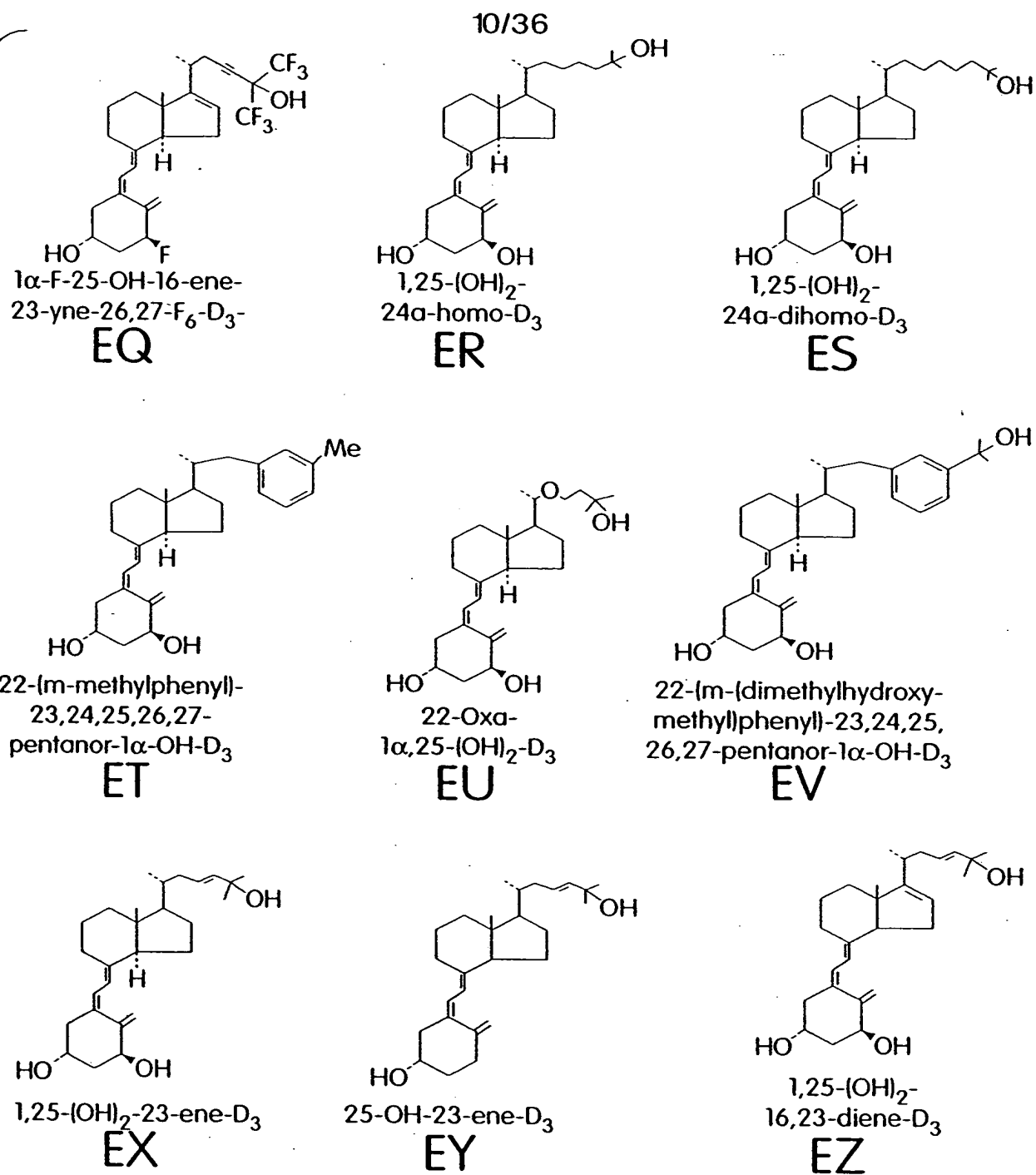


Fig. 1A-8

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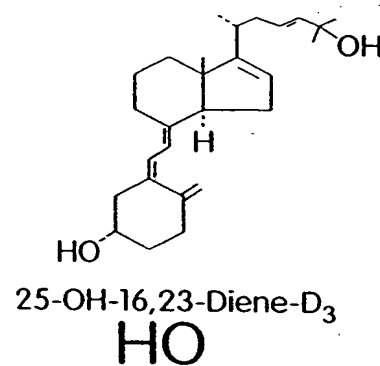
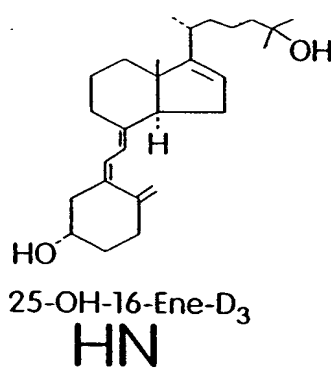
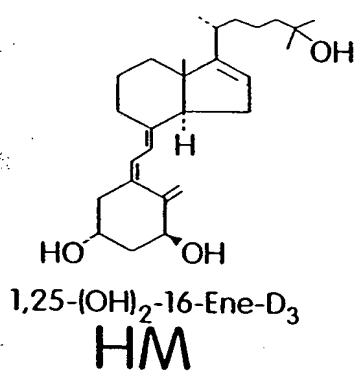
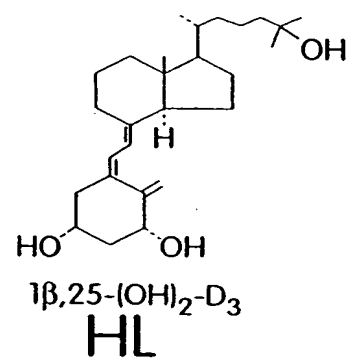
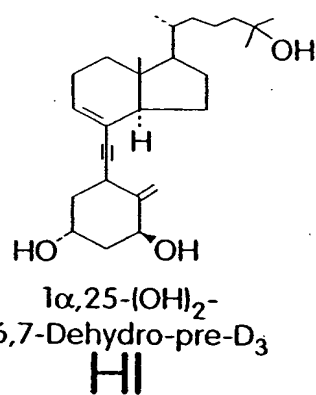
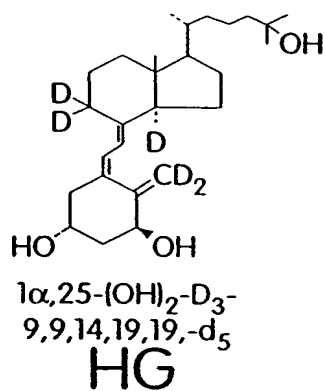
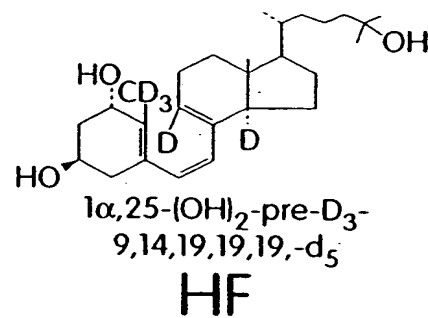
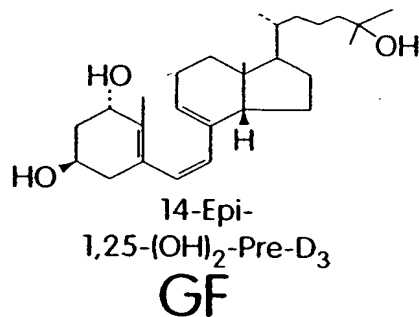
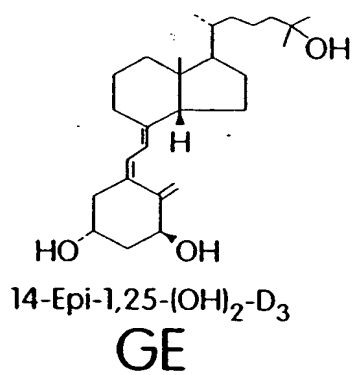


Fig. 1A-9

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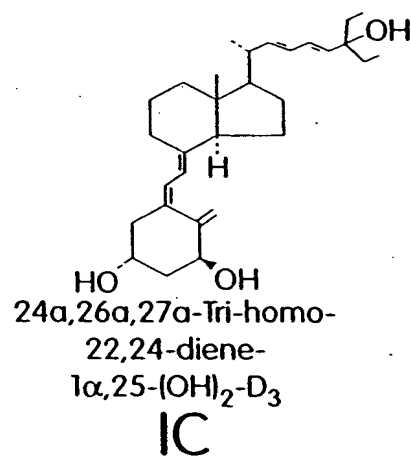
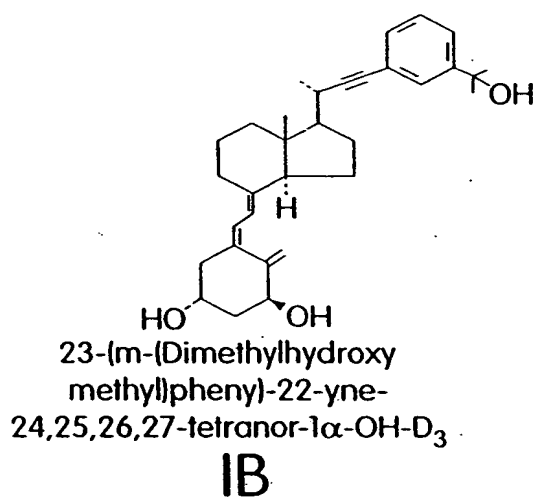
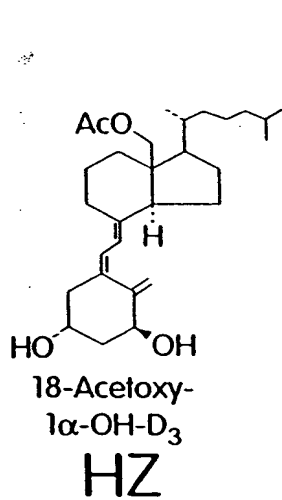
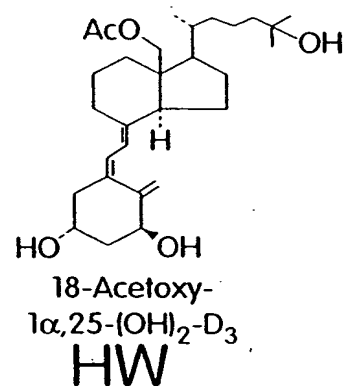
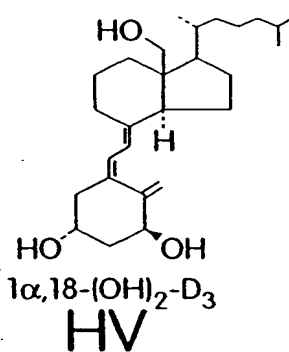
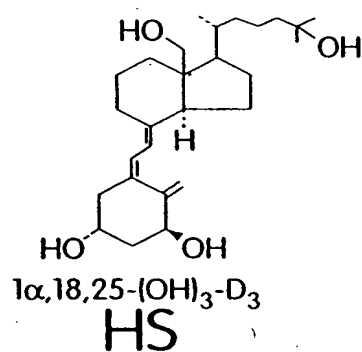
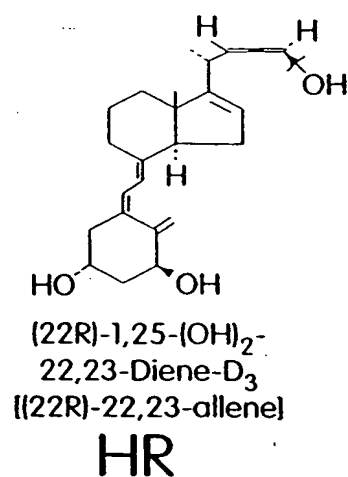
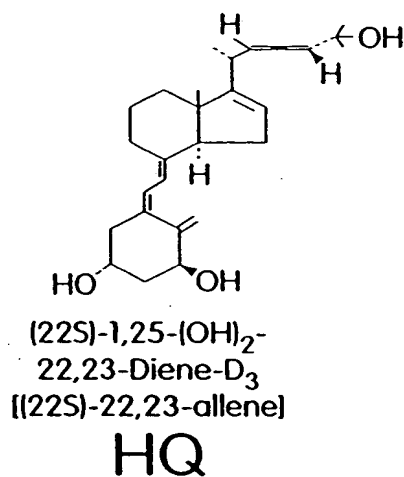
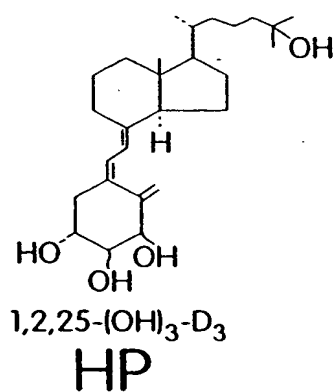


Fig. 1A-10

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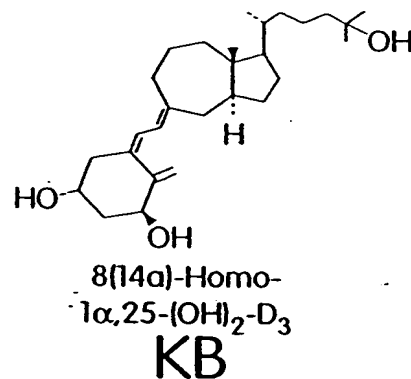
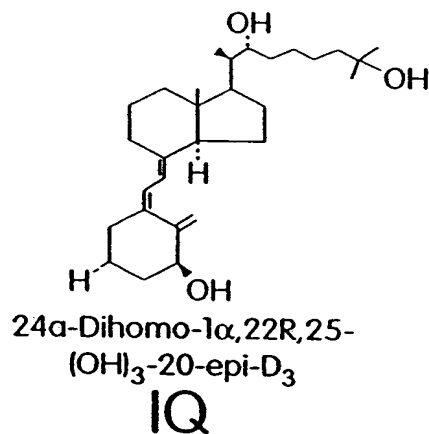
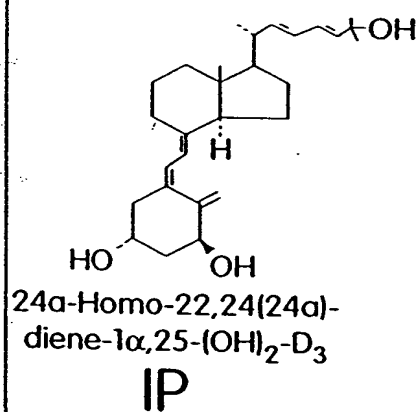
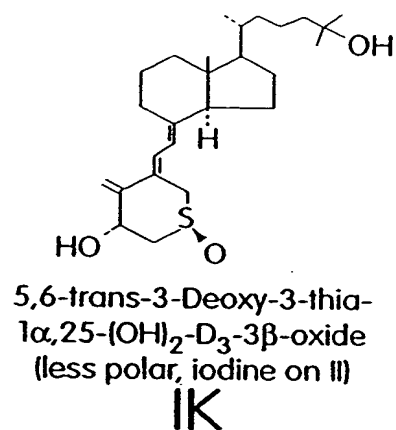
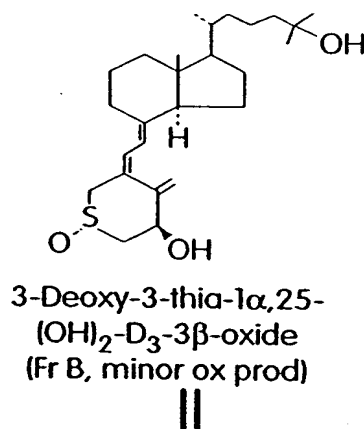
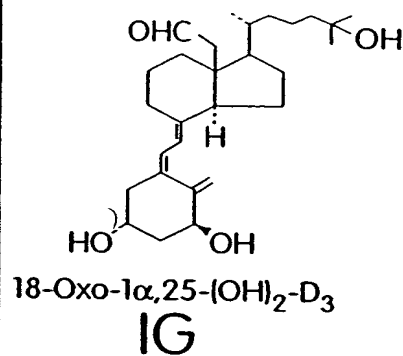
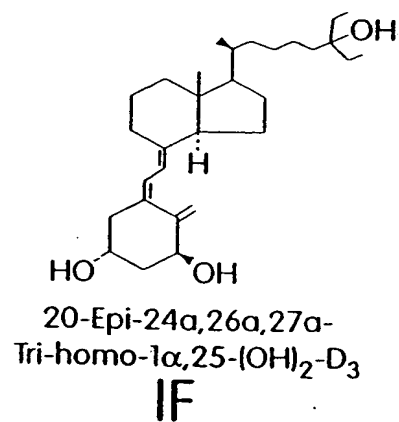
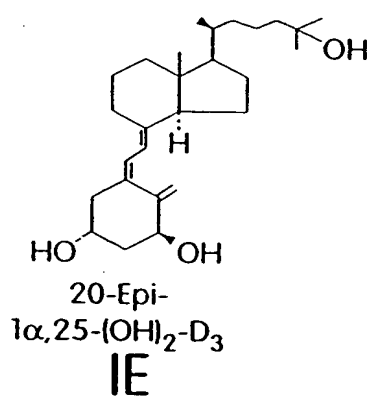
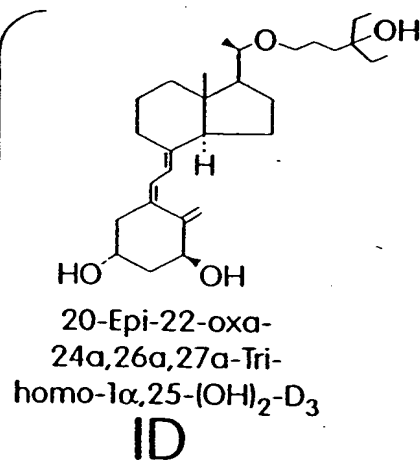


Fig. 1A-11

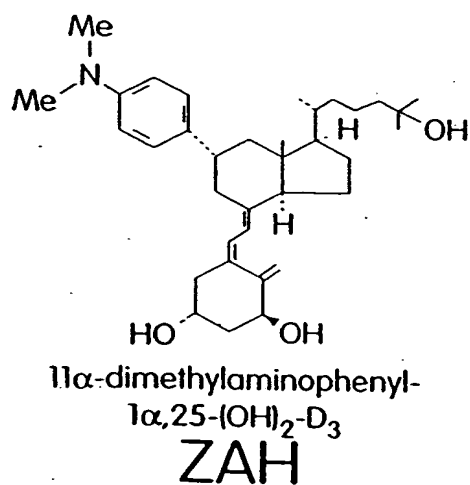
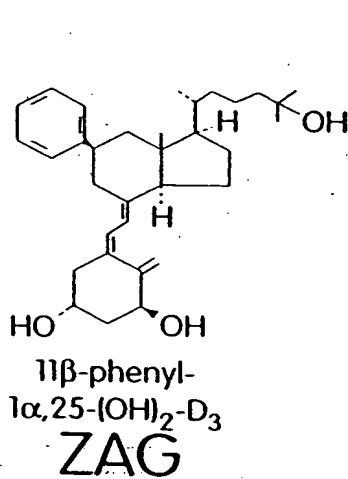
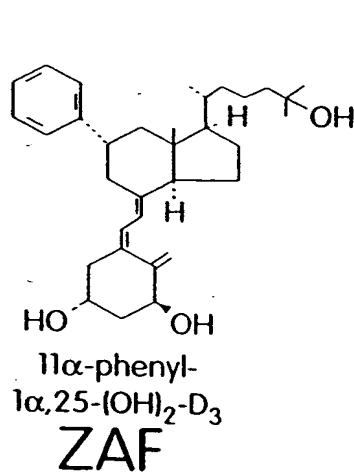
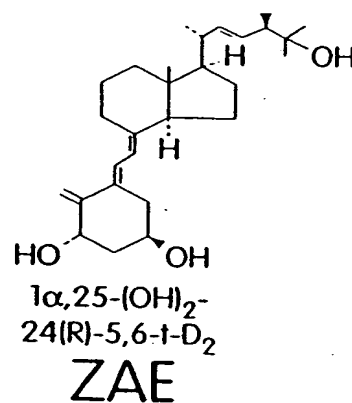
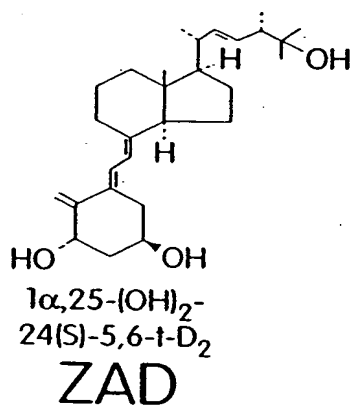
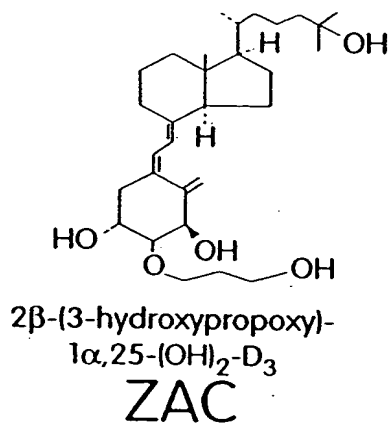
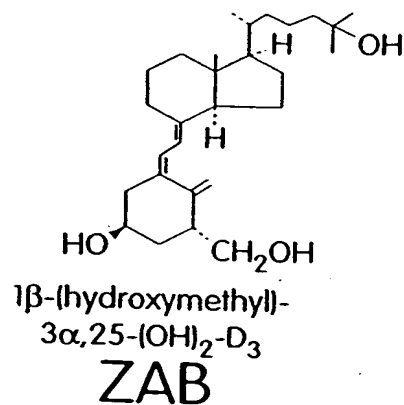
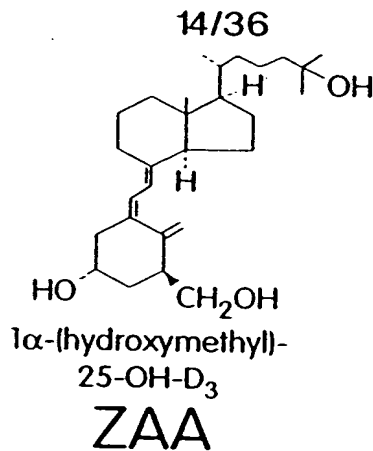
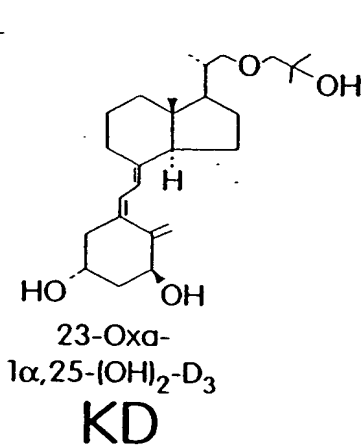


Fig. 1A-12

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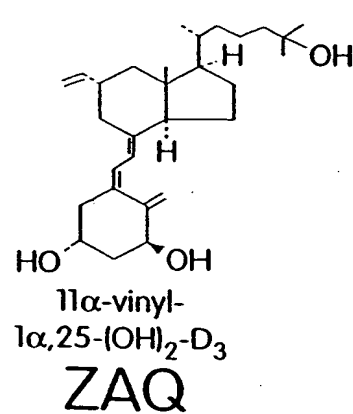
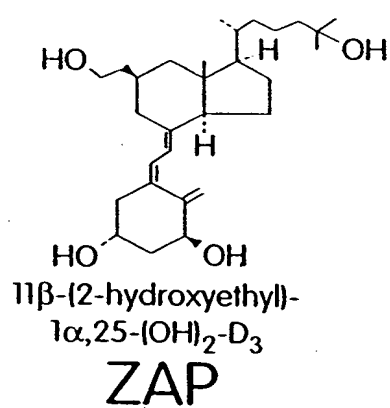
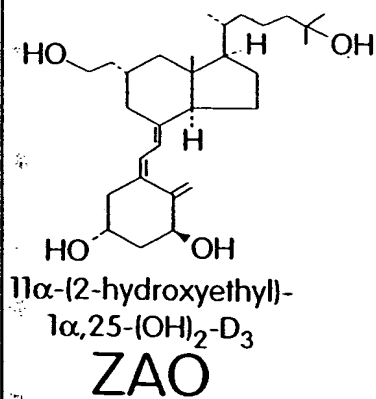
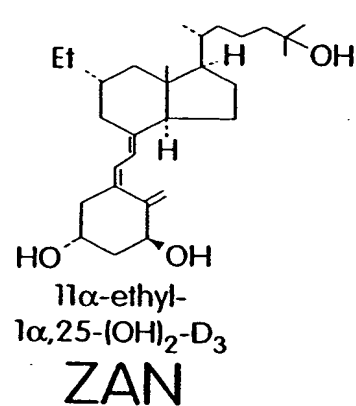
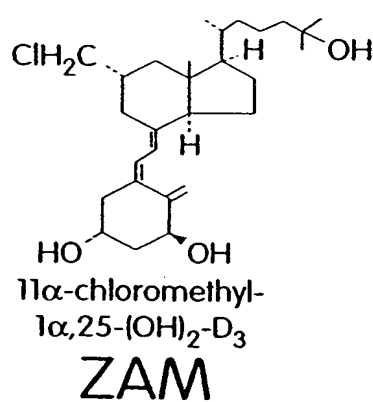
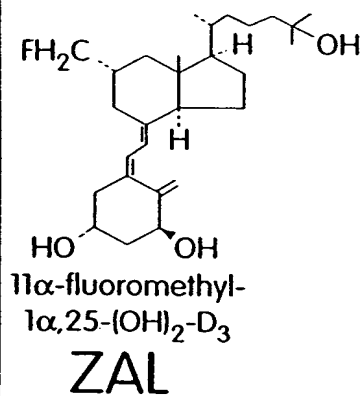
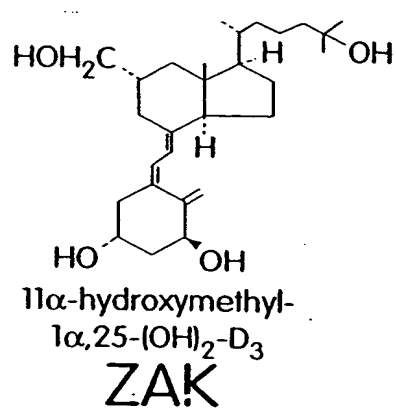
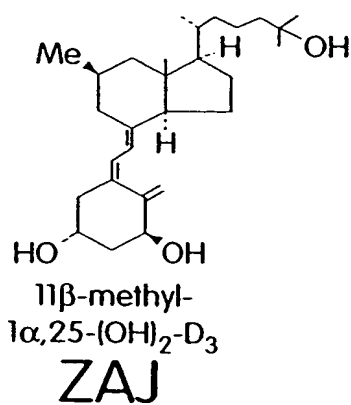
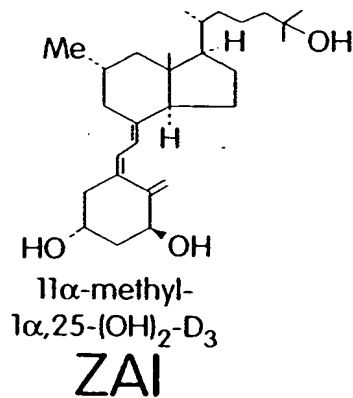
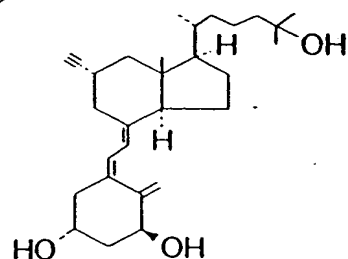
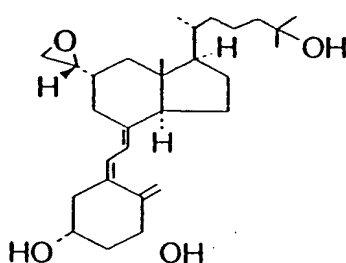


Fig. 1A-13



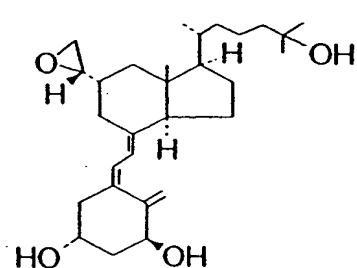
11α-ethynyl-
1α,25-(OH)₂-D₃

ZAR



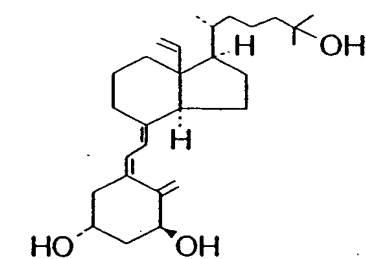
11α-[11'(R)-oxacyclopropyl]-
1α,25-(OH)₂-D₃

ZAS



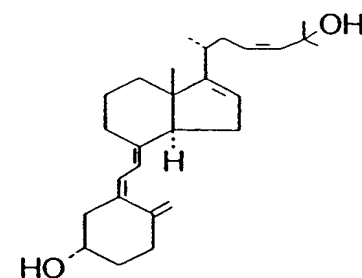
11α-[11'(S)-oxacyclopropyl]-
1α,25-(OH)₂-D₃

ZAT



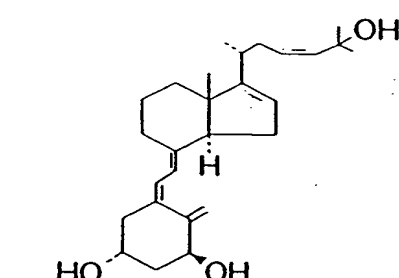
1α,25-(OH)₂-
13-vinyl-18-nor-D₃

ZAU



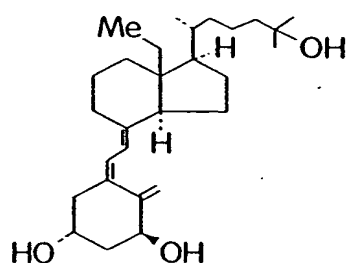
25-(OH)-16,23(Z)-
diene-D₃

ZAW



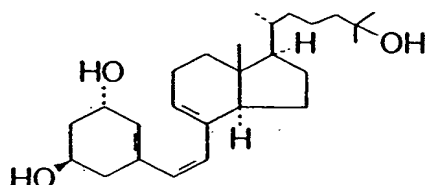
1α,25-(OH)₂-16,23(Z)-
diene-D₃

ZAX



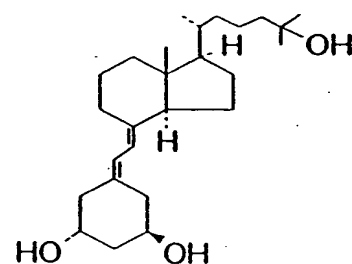
1α,25-(OH)₂-
18-methyl-D₃

ZAY



1α,25-(OH)₂-
19-nor-pre-D₃

ZAZ

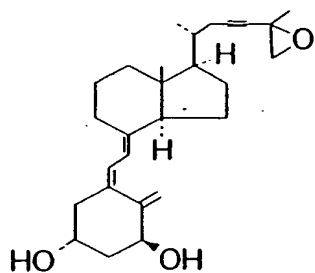


1α,25-(OH)₂-
19-nor-D₃

ZBA

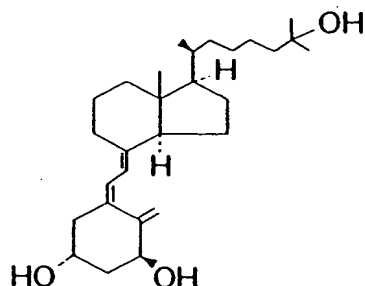
Fig. 1A-14

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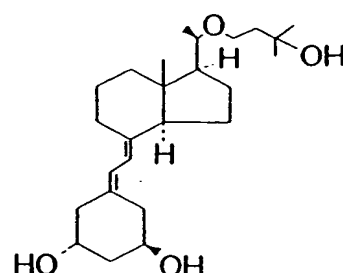
25,26-epoxy-23-yne-
19-nor-1 α ,25-(OH)₂-D₃

ZBB



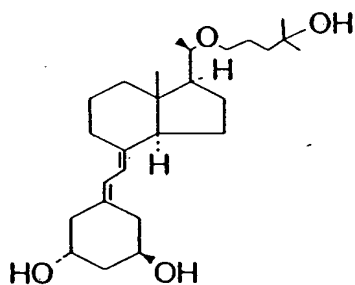
20-epi-24-homo-
1 α ,25-(OH)₂-D₃

ZBC



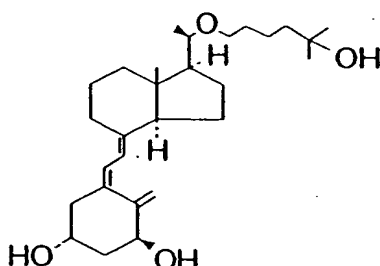
20-epi-22-oxa-
1 α ,25-(OH)₂-D₃

ZBD



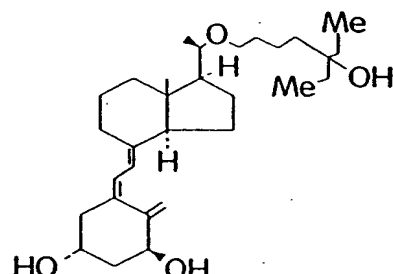
20-epi-22-oxa-
24-homo-1 α ,25-(OH)₂-D₃

ZBE



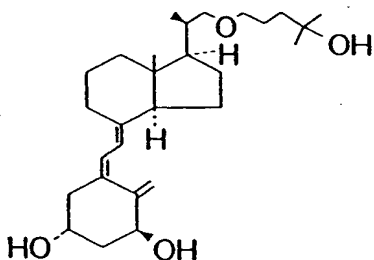
20-epi-22-oxa-
24-dihomo-1 α ,25-(OH)₂-D₃

ZBF



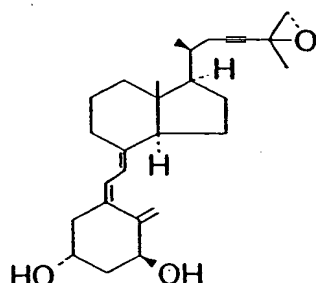
20-epi-22-oxa-24-dihomo-
26,27-dihomo-1 α ,25-(OH)₂-D₃

ZBG



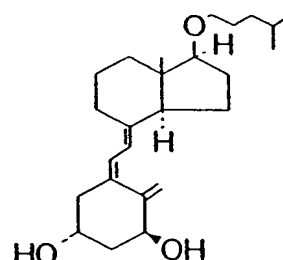
20-epi-23-oxa-24a,24b-
dihomo-1 α ,25-(OH)₂-D₃

ZBH



25,26-epoxy-23-yne-
20-epi-1 α ,25-(OH)-D₃

ZBI



1 α -(OH)-20-oxa-
21-nor-D₃

ZBJ

Fig. 1A-15

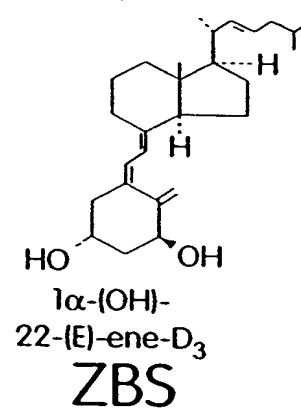
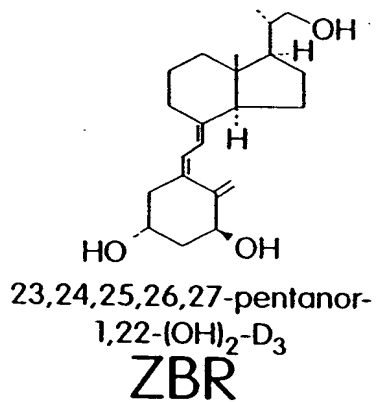
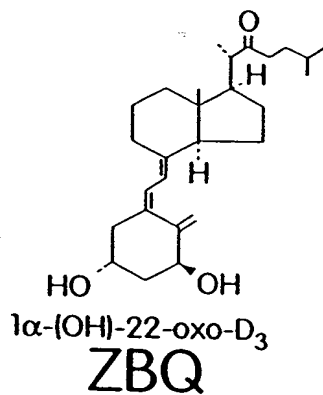
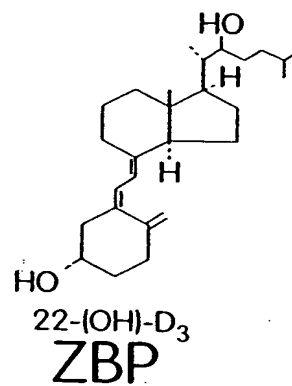
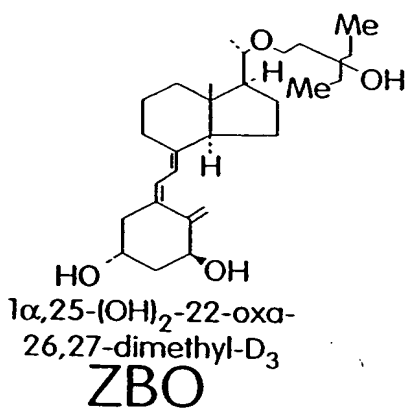
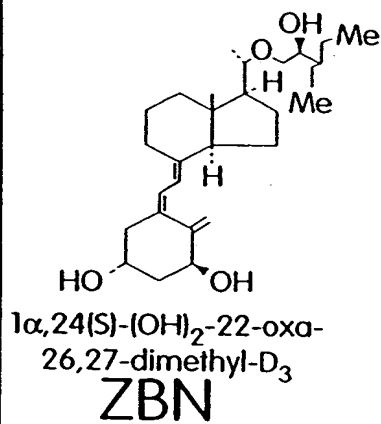
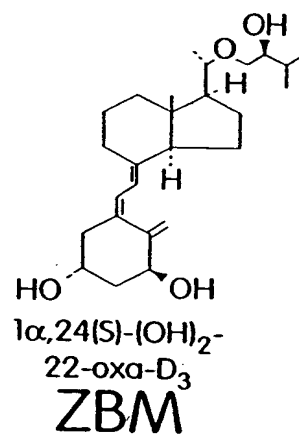
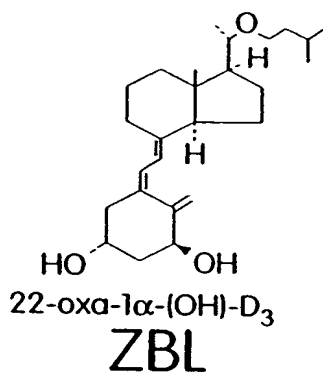
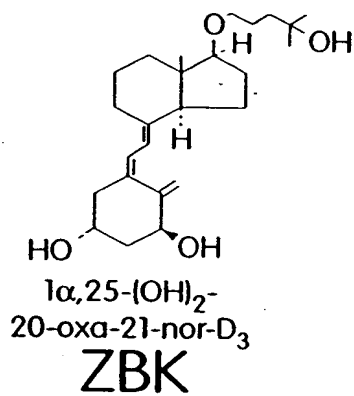
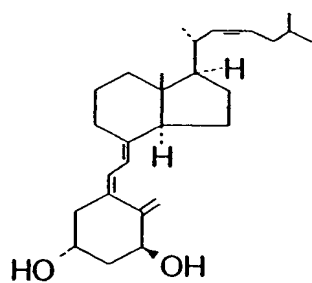


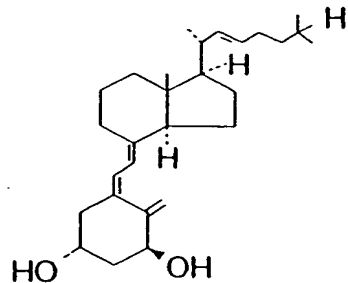
Fig. 1A-16

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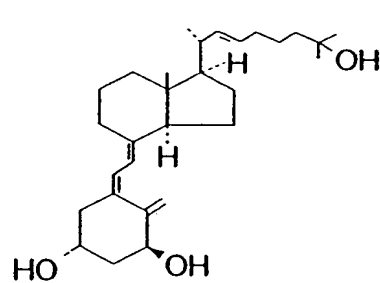
1 α -(OH)-
22-(Z)-ene-D₃

ZBT



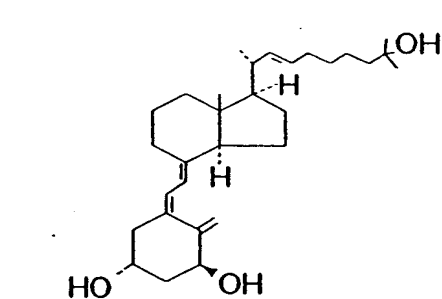
1 α ,25-(OH)₂-
22-ene-24-homo-D₃

ZBU



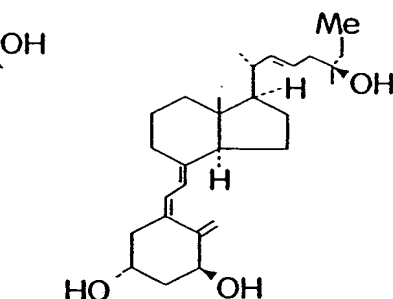
1 α ,25-(OH)₂-22-ene-
24,24-dihomo-D₃

ZBV



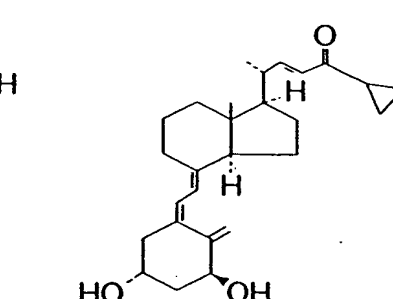
22-Dehydro-24,24,24-
trihomo-1 α ,25-(OH)₂-D₃

ZBW



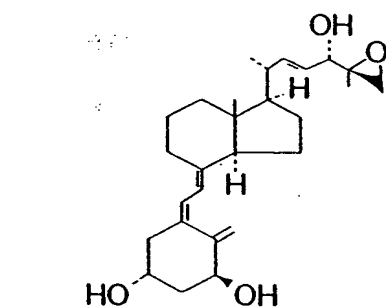
26-homo-22-dehydro
1 α -25(R)-(OH)₂-D₃

ZBX



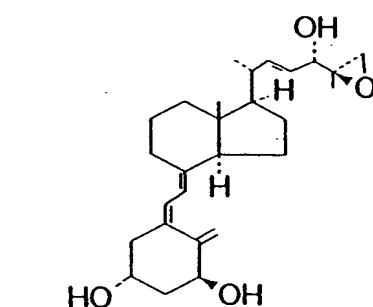
1 α -(OH)-22-ene-24-oxo-
26,27-dehydro-D₃

ZBY



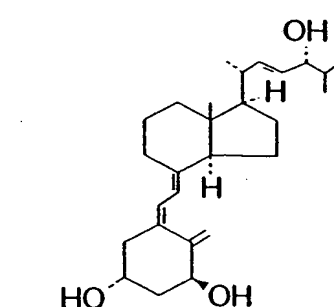
(24S,25S)-25,26-epoxy-
22-ene-1 α ,24-(OH)₂-D₃

ZBZ



(24S,25R)-25,26-epoxy-
22-ene-1 α ,24-(OH)₂-D₃

ZCA



(22E,24R)1 α ,24-(OH)₂-
22-dehydro-D₃

ZCB

Fig. 1A-17

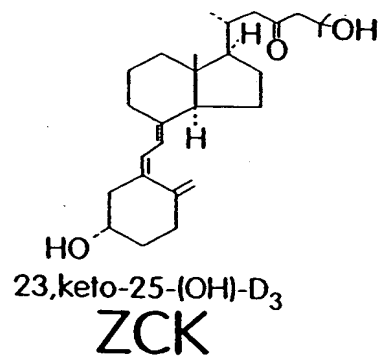
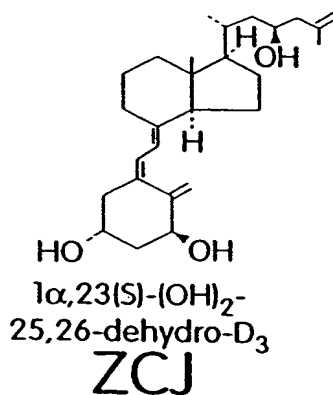
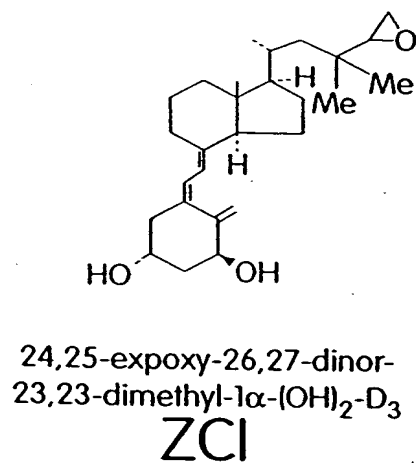
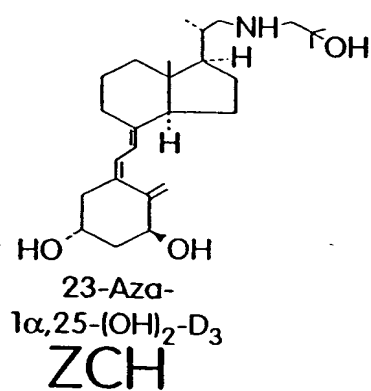
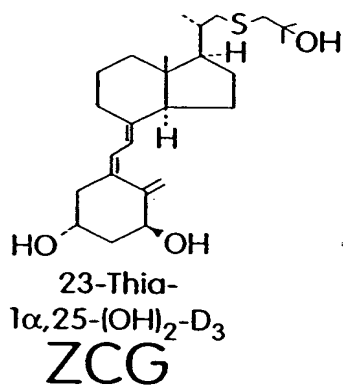
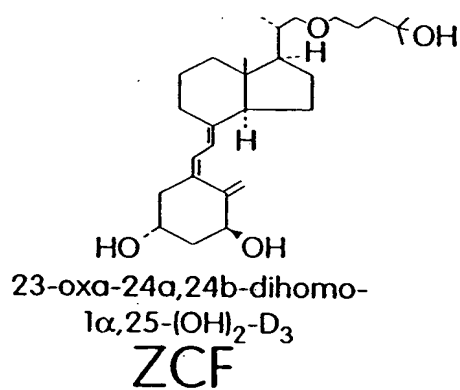
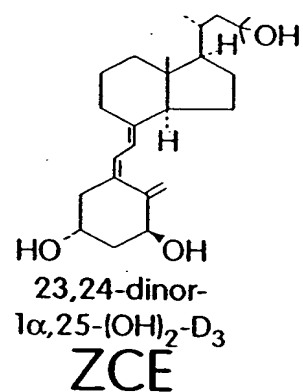
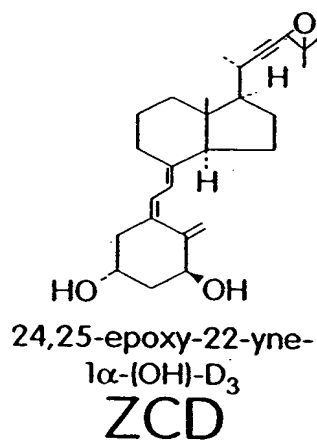
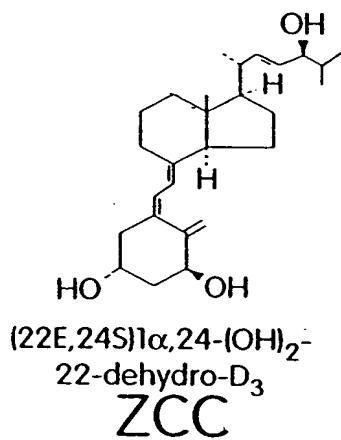


Fig. 1A-18

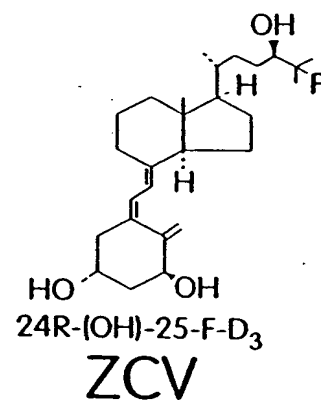
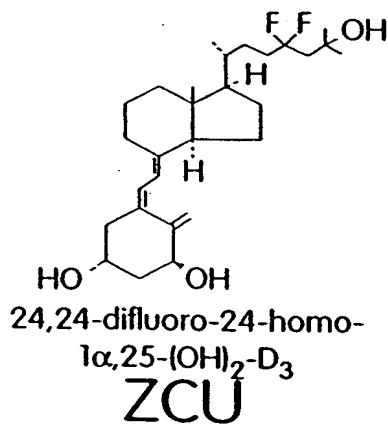
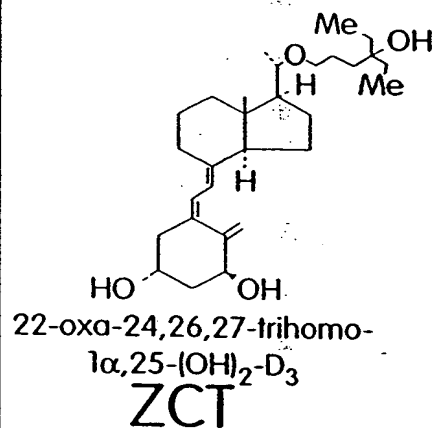
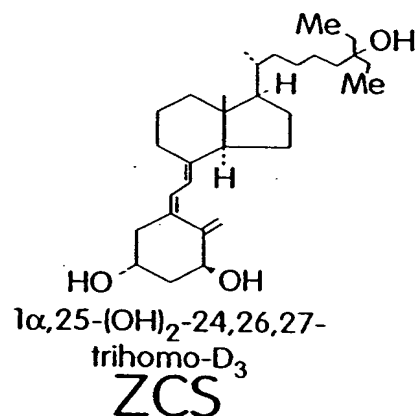
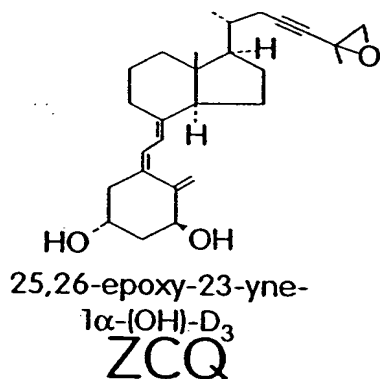
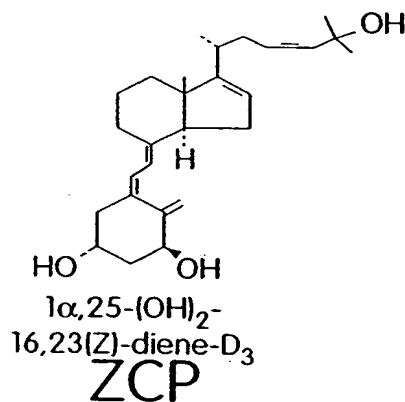
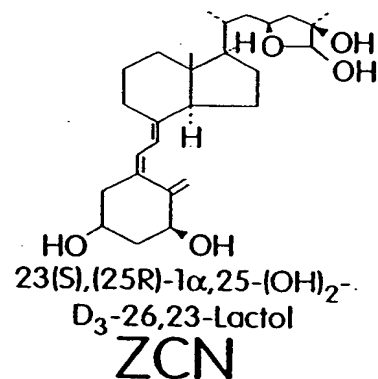
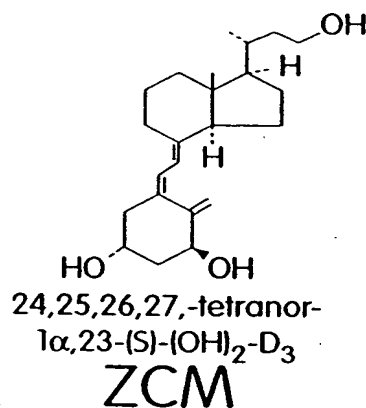
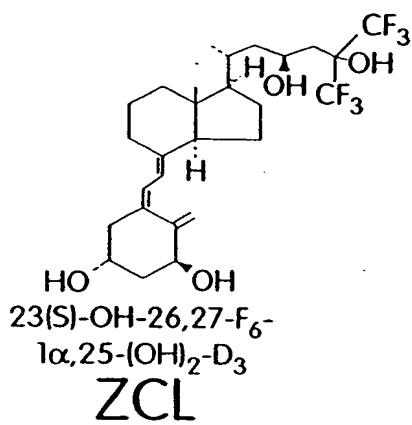


Fig. 1A-19

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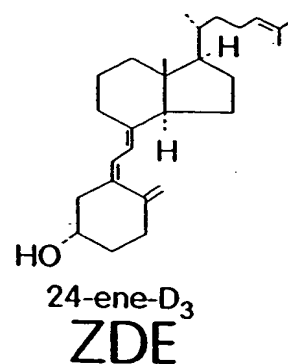
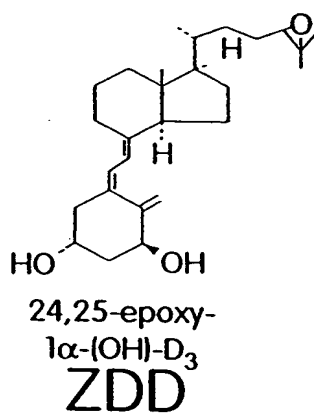
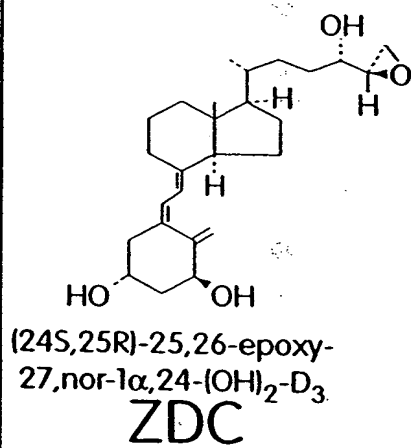
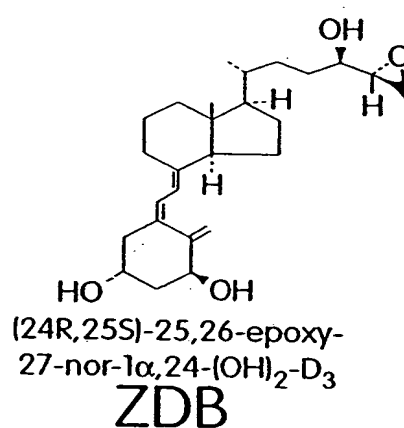
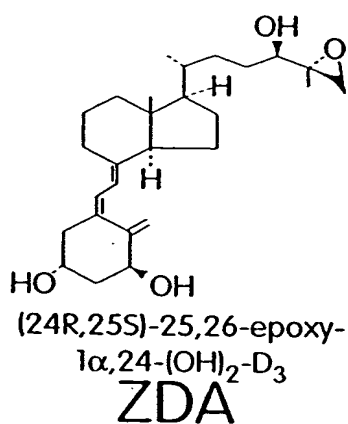
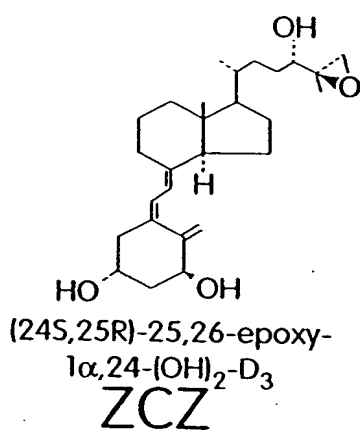
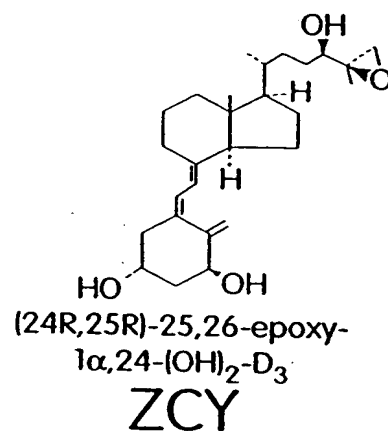
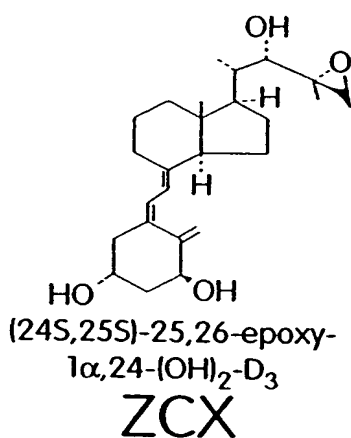
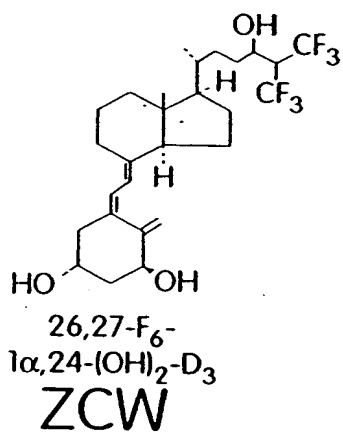


Fig. 1A-20

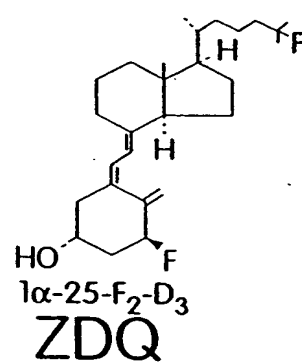
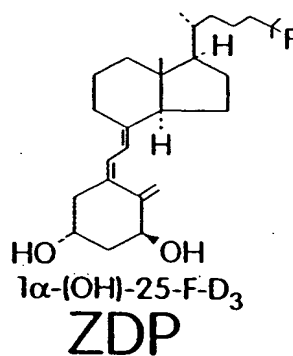
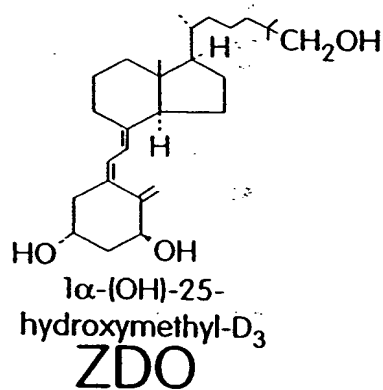
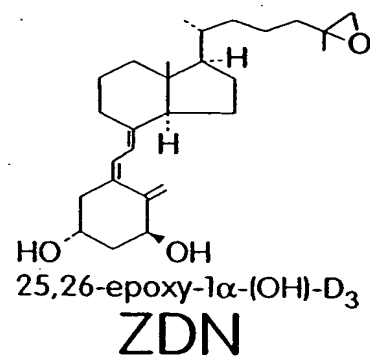
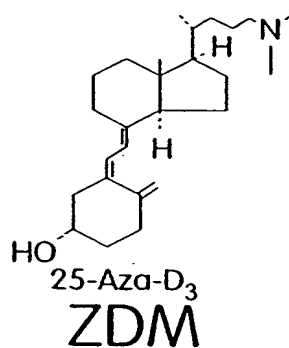
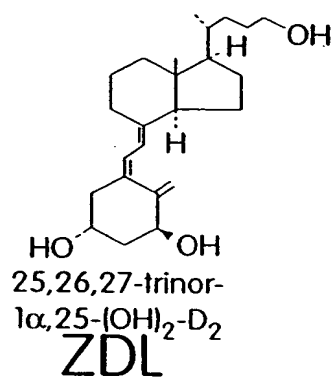
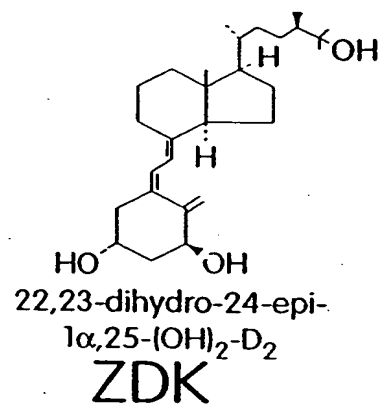
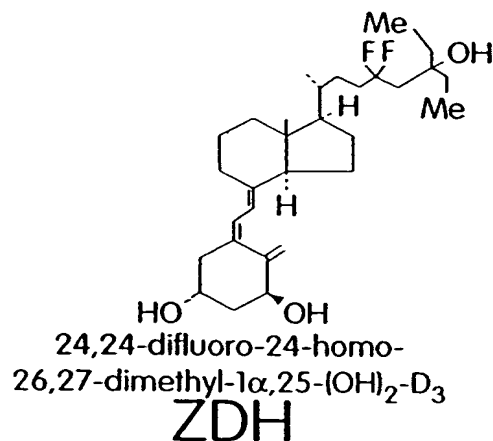
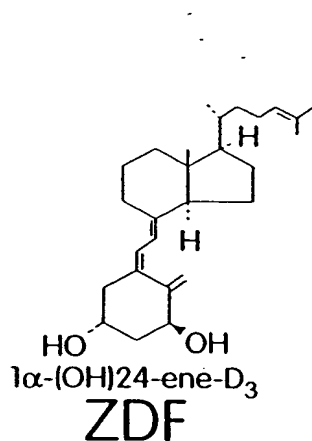


Fig. 1A-21

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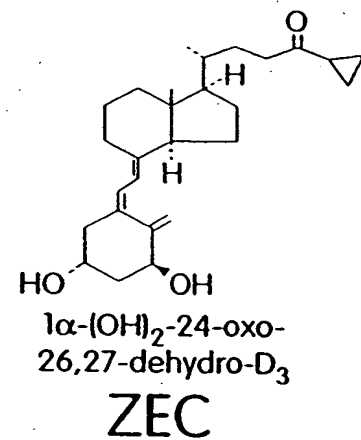
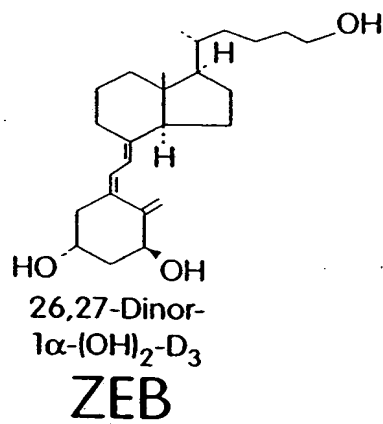
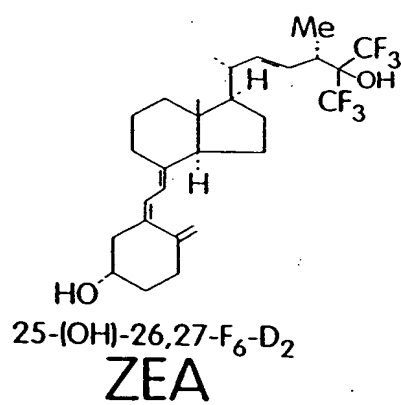
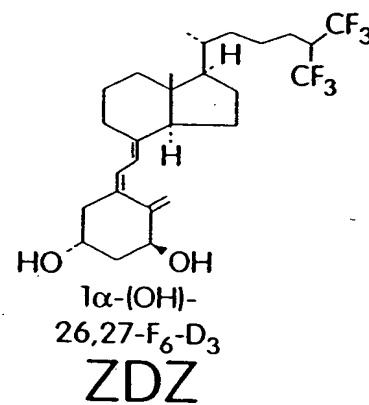
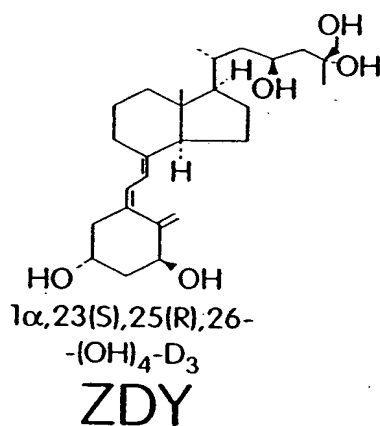
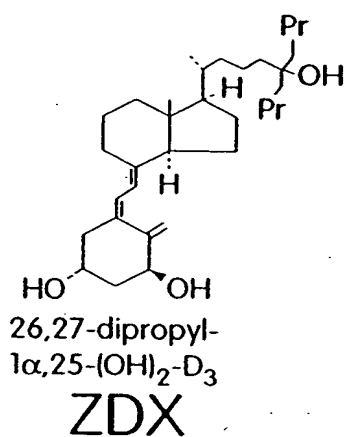
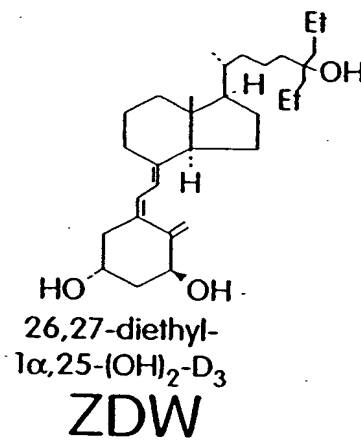
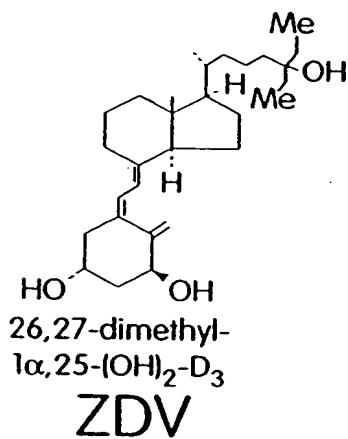
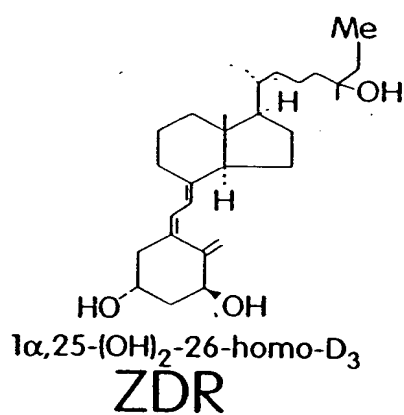


Fig. 1A-22

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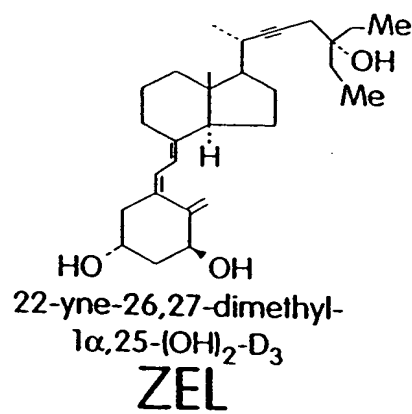
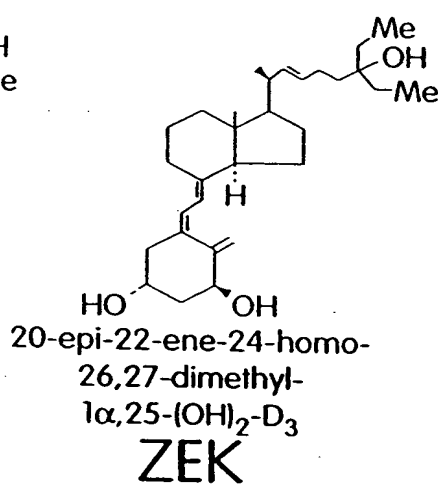
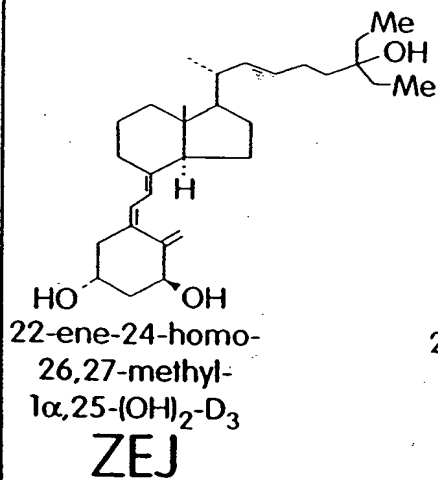
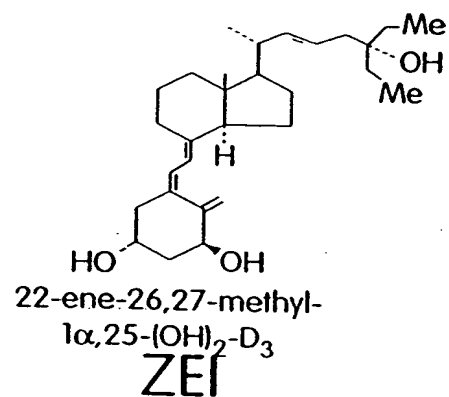
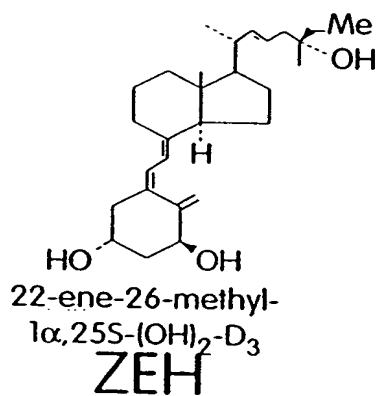
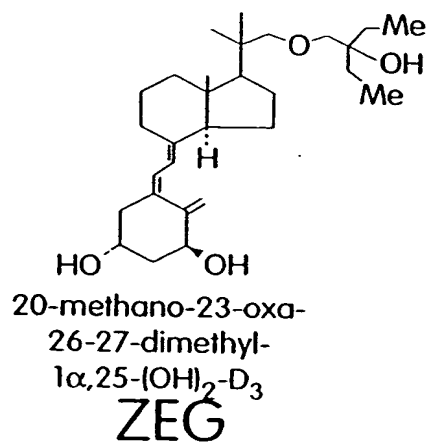
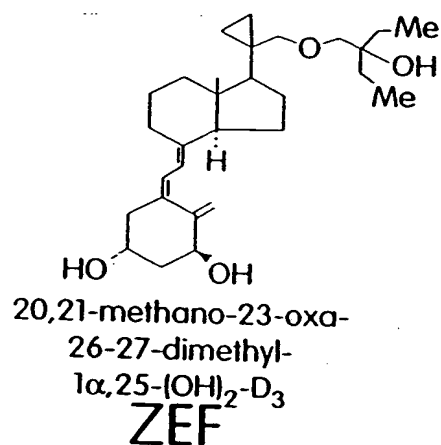
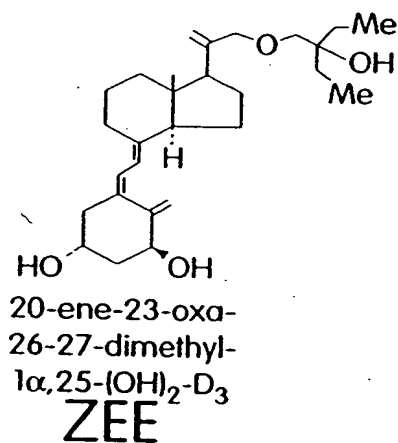
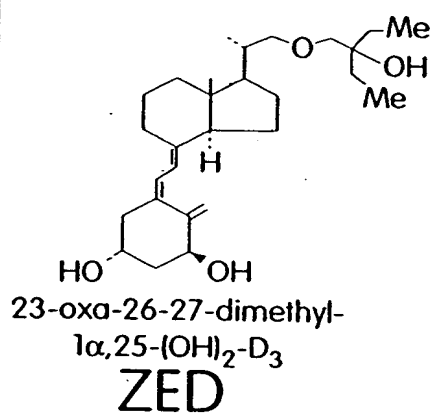
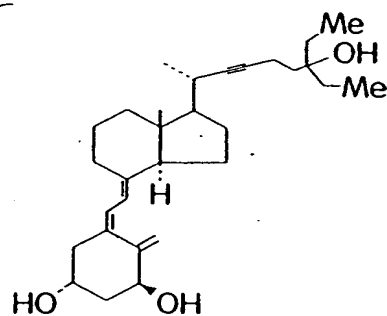


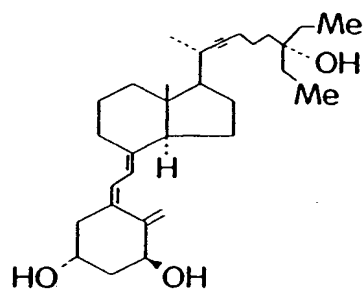
Fig. 1A-23

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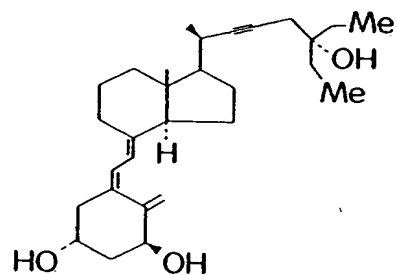
22-yne-24-homo-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZEM



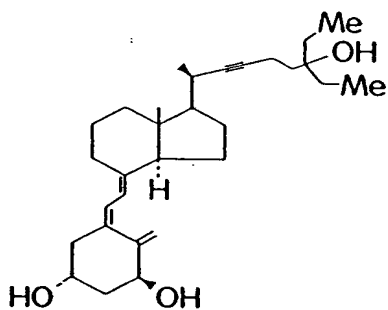
22-yne-24-dihomo-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZEN



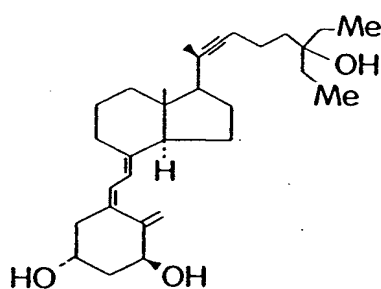
20-epi-22-yne-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZEO



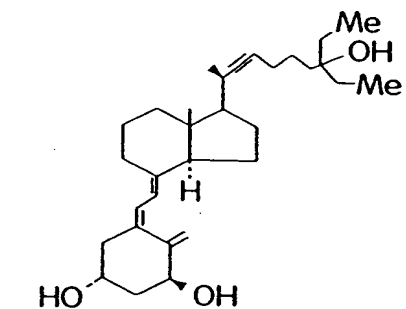
20-epi-22-yne-24-homo-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZEP



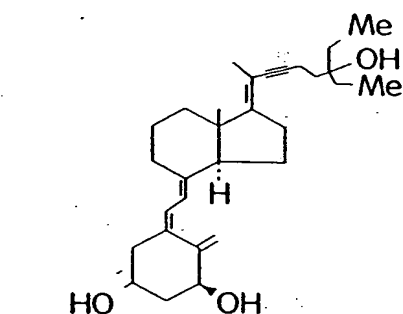
20-epi-22-yne-24-dihomo-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZEQ



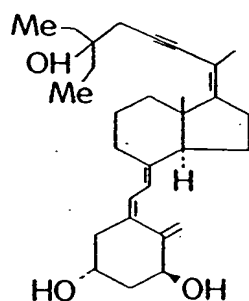
20-epi-22-yne-24-trihomo-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZER



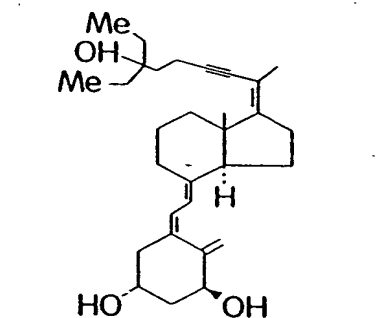
17(20)E-ene-22-yne-
24-homo-26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZES



17(20)Z-ene-22-yne-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZET



17(20)Z-ene-22-yne-
24-homo-26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZEU

Fig. 1A-24

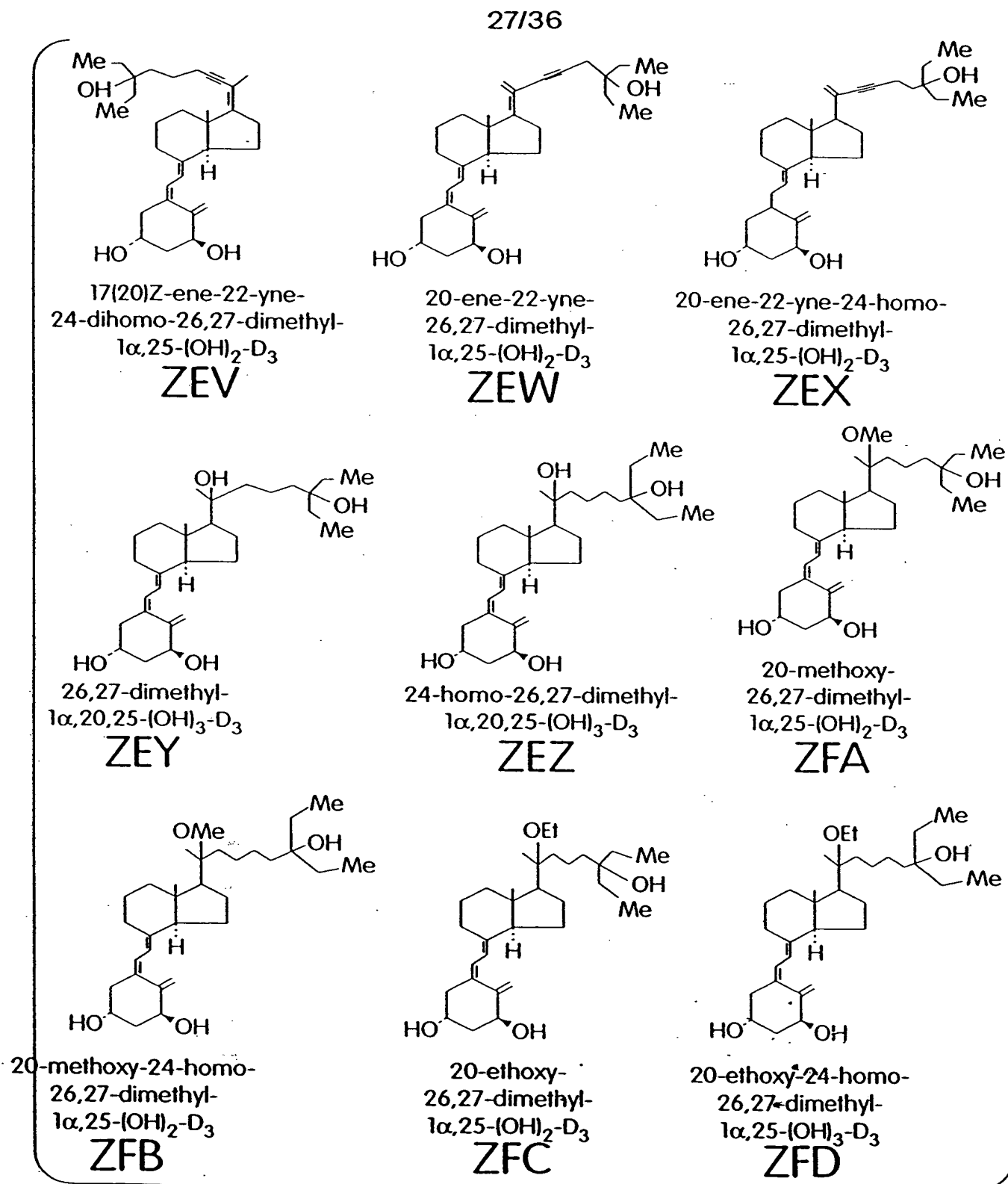


Fig. 1A-25

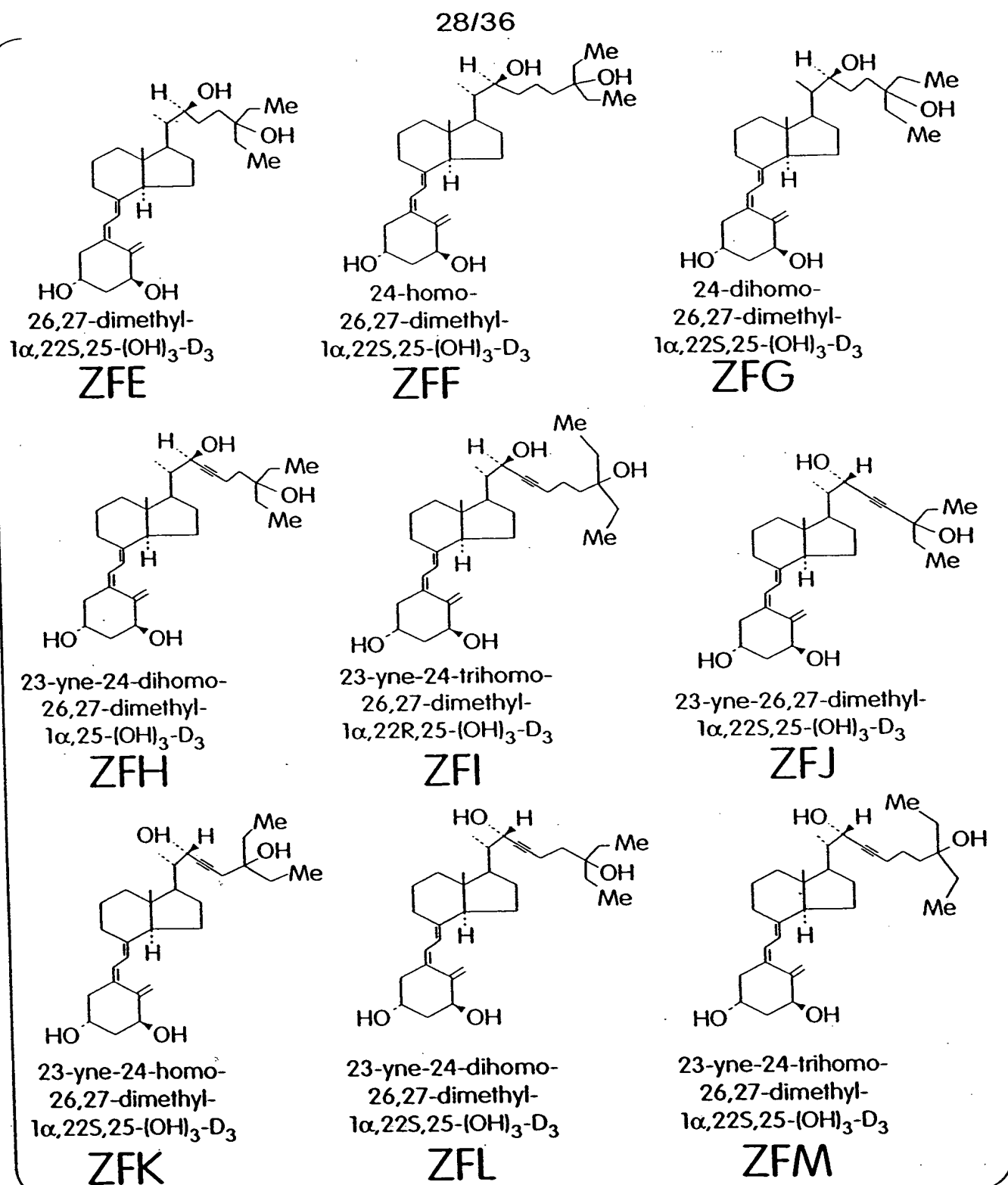
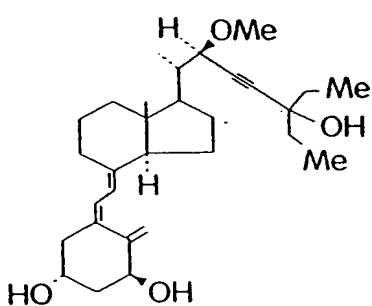


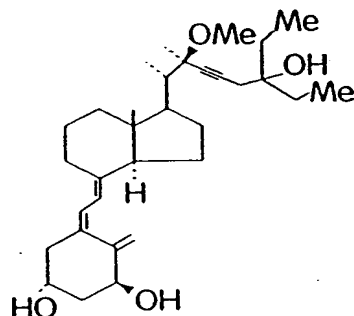
Fig. 1A-26

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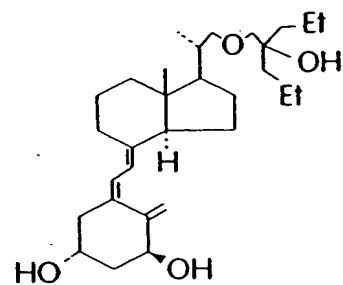
22R-methoxy-23-yne-
26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZFN



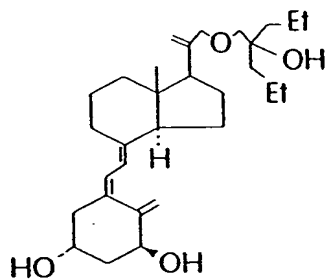
22R-methoxy-23-yne-
24-homo-26,27-dimethyl-
1 α ,25-(OH)₂-D₃

ZFO



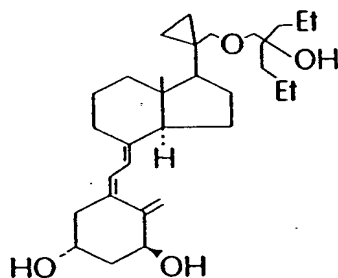
23-oxa-
26,27-diethyl-
1 α ,25-(OH)₂-D₃

ZFP



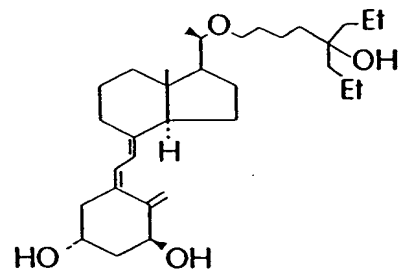
20-ene-23-oxa-
26,27-diethyl-
1 α ,25-(OH)₂-D₃

ZFQ



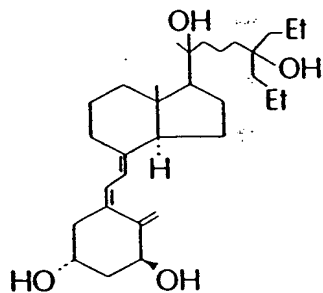
20,21-methano-23-oxa-
26,27-diethyl-
1 α ,25-(OH)₂-D₃

ZFR



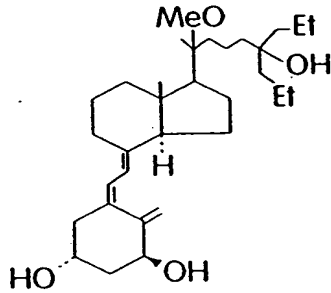
20-epi-22-oxa-24-dihomo-
26,27-diethyl-
1 α ,25-(OH)₂-D₃

ZFS



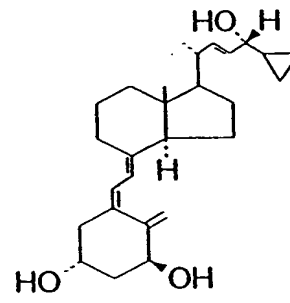
26,27-diethyl-
1 α ,20,25-(OH)₃-D₃

ZFT



20-methoxy-26-27-diethyl-
1 α ,25-(OH)₂-D₃

ZFU

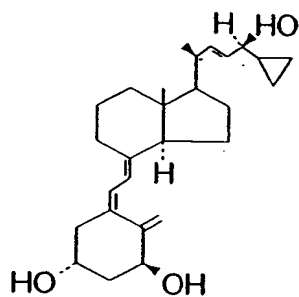


22-ene-26-27-dehydro-
1 α ,24R-(OH)₂-D₃

ZFV

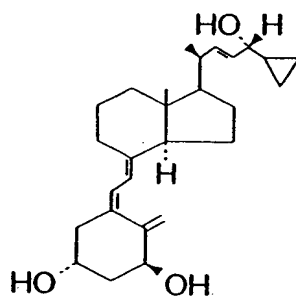
Fig. 1A-27

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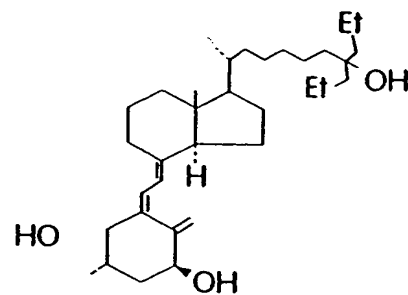
20-epi-22-ene-
26,27-dehydro-
1 α ,24S-(OH)₂-D₃

ZFW



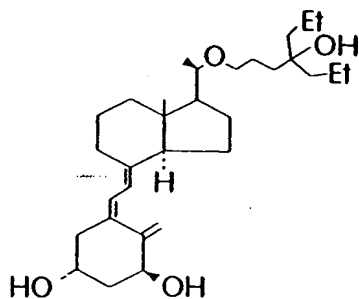
20-epi-22-ene-
26,27-dehydro-
1 α ,24S-(OH)₂-D₃

ZFX



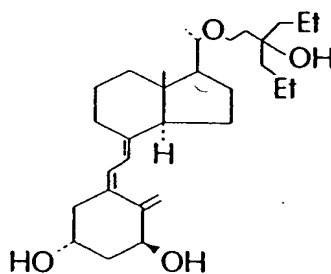
24-dihomo-26,27-diethyl-
1 α ,25-(OH)₂-D₃

ZFY



20-epi-22-oxa-24-dihomo-
26,27-diethyl-
1 α ,25-(OH)₂-D₃

ZFZ



22-oxa-26,27-diethyl-
1 α ,25-(OH)₂-D₃

ZGA

Fig. 1A-28

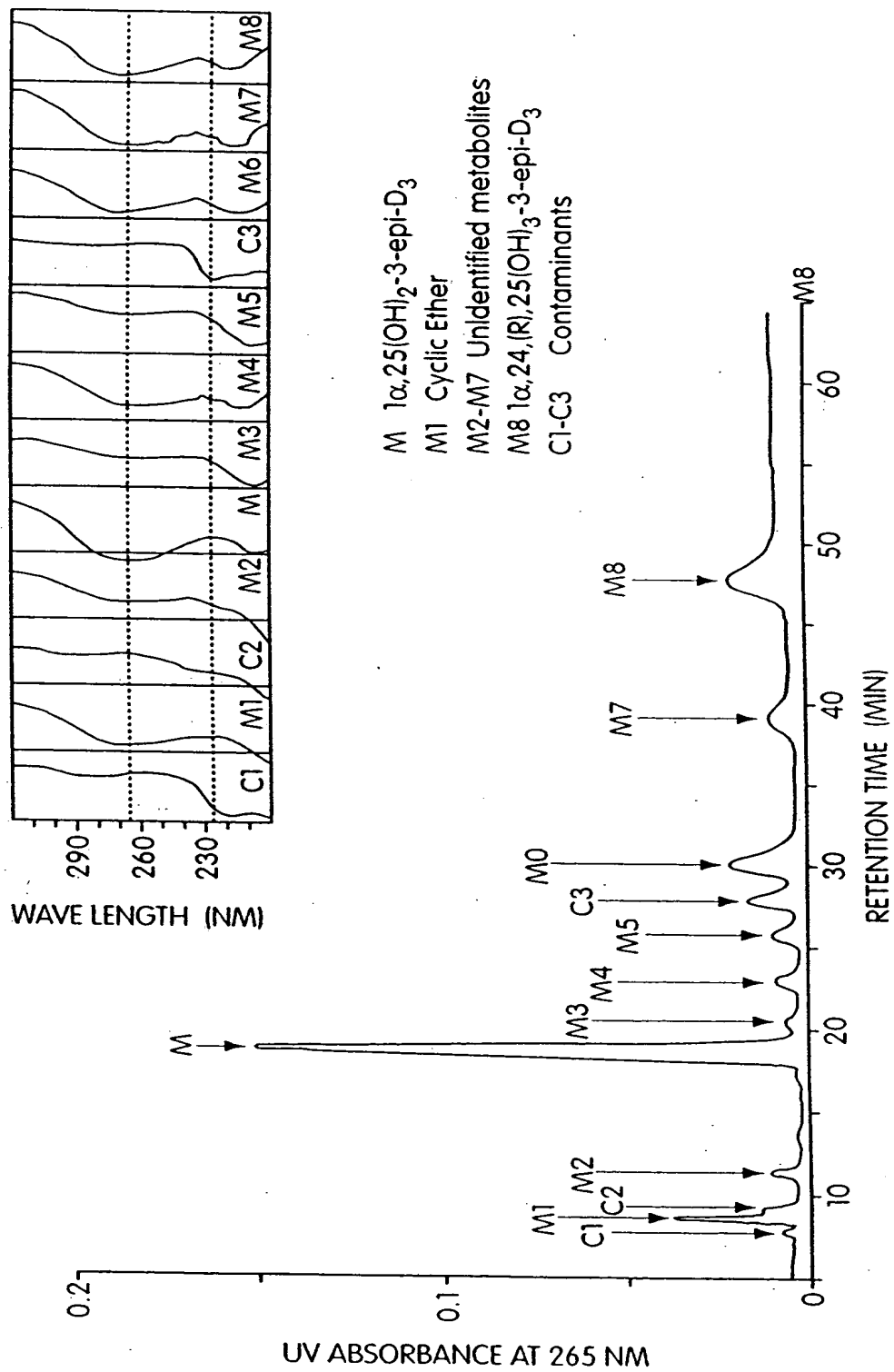


Fig.2



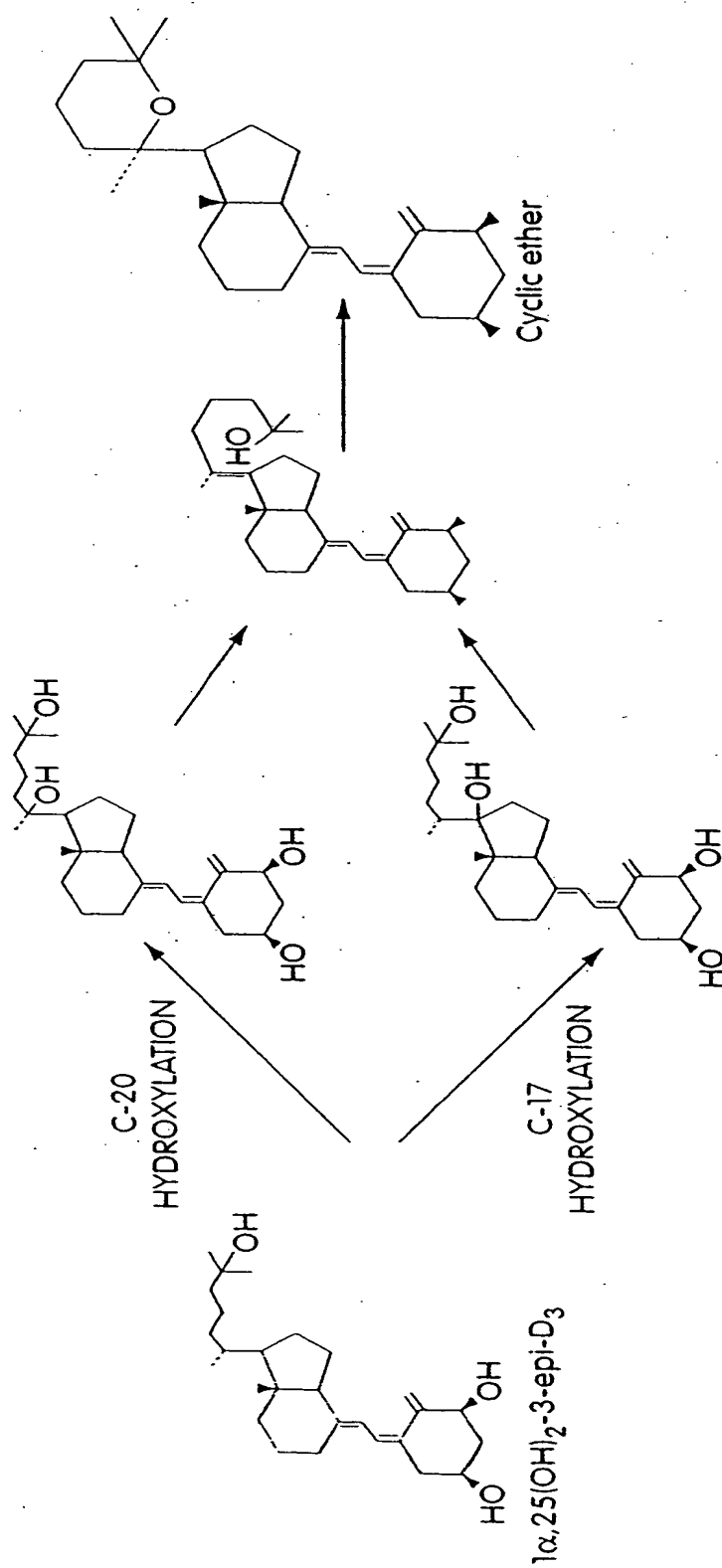


Fig. 4

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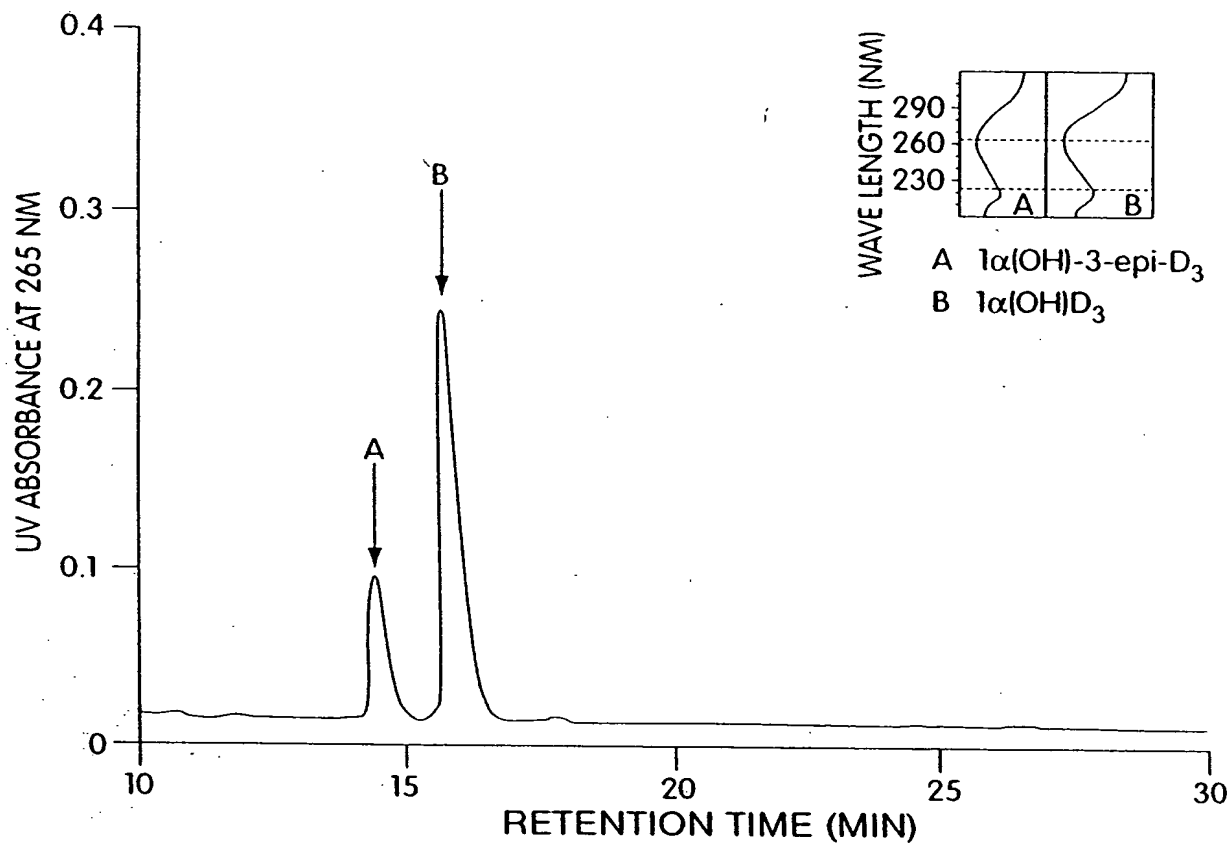


Fig. 5A

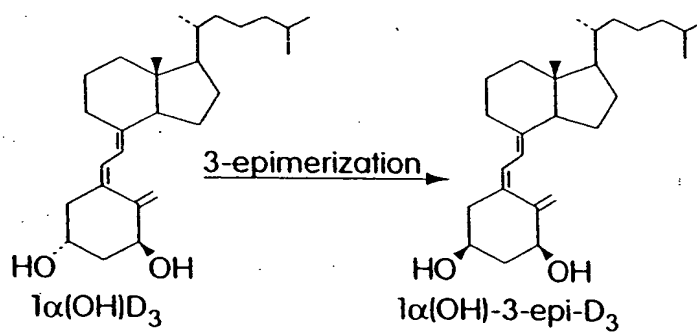


Fig. 5B

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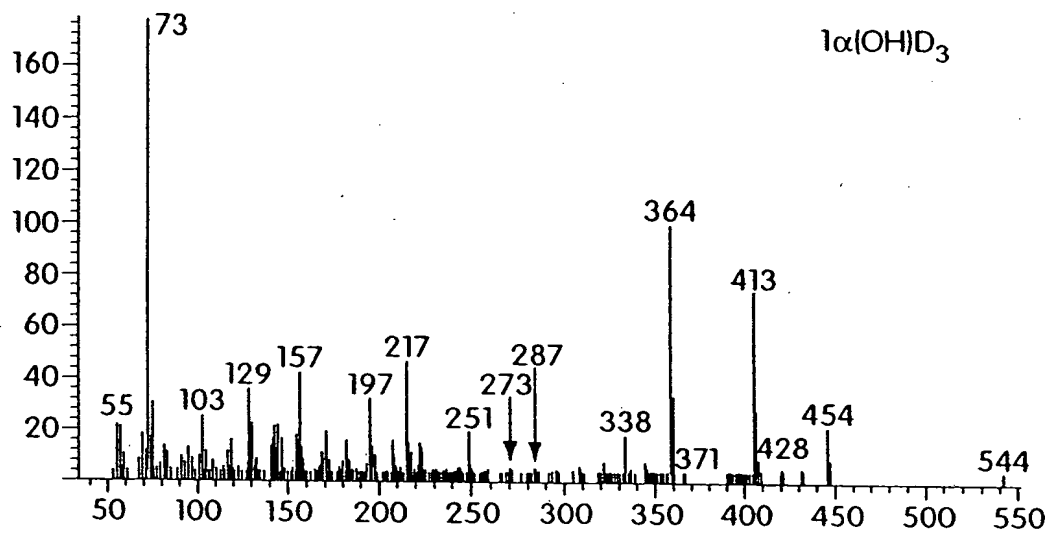


Fig. 6A

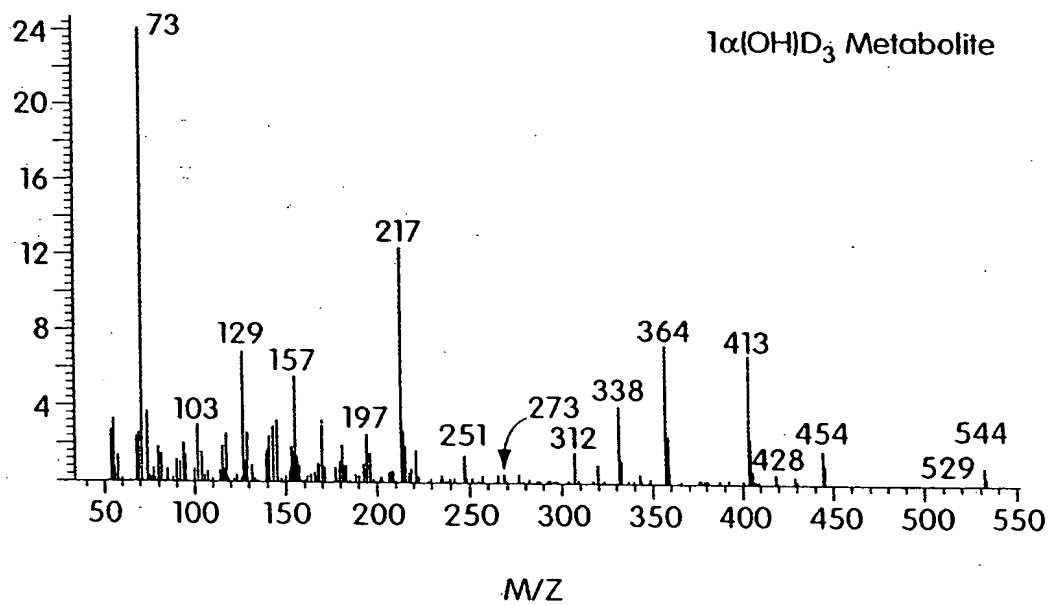


Fig. 6B

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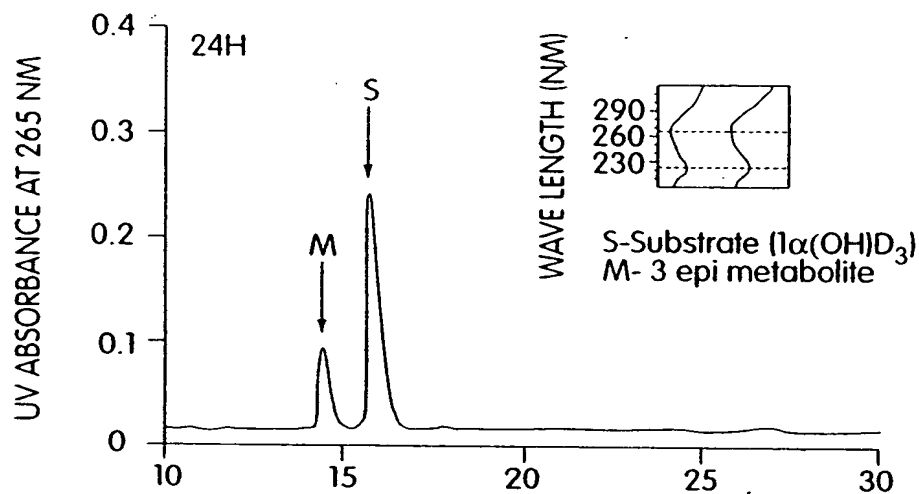


Fig. 7A

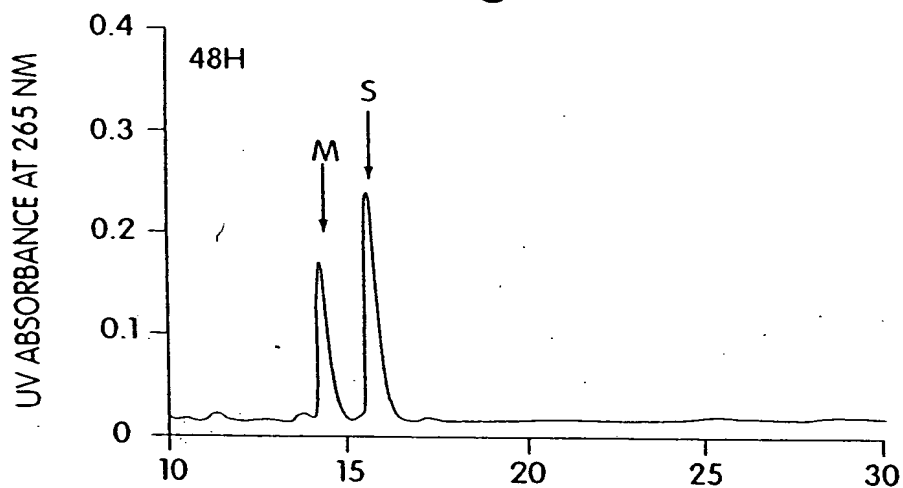


Fig. 7B

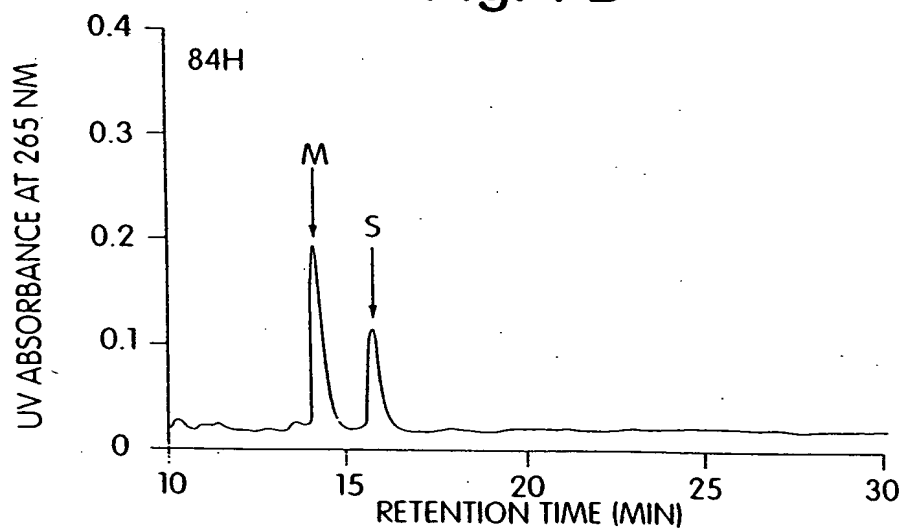


Fig. 7C